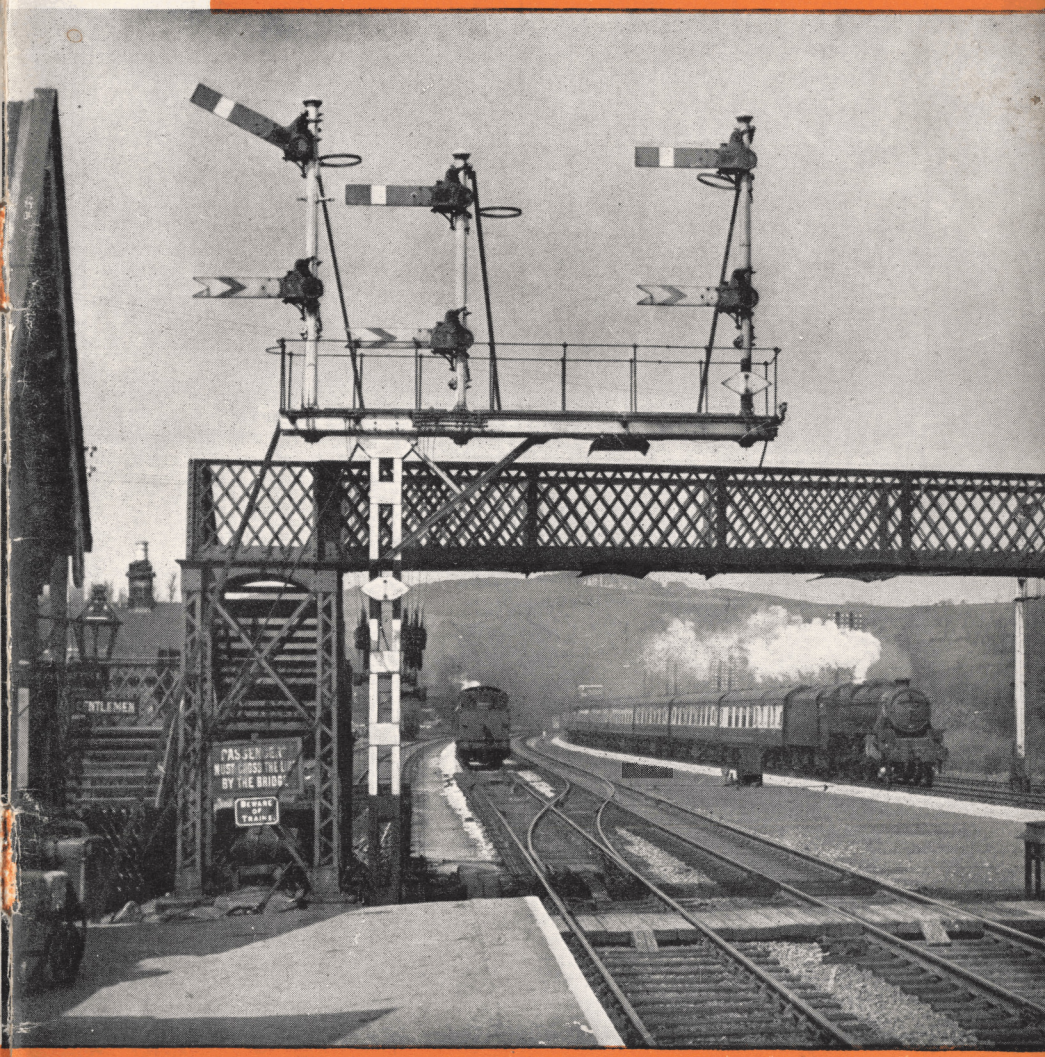
TRAINS ILLUSTRATED

JANUARY, 1954



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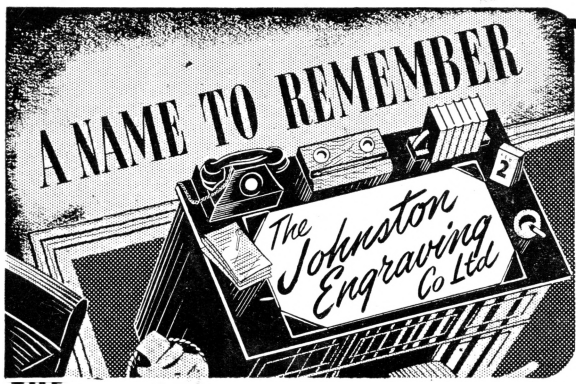

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THE OPINIONS EXPRESSED BY OUR CONTRIBUTORS ARE NOT NECESSARILY THOSE OF EDITOR OR PUBLISHERS

Above: WEST COAST FREIGHT—"Patriot" Class 4-6-0 No. 45518 *Bradshaw* attacks the climb out of Lancaster with an up goods. [*Eric Treacy*

Front Cover: DESCENDING FROM THE PEAK—A Manchester-St. Pancras express approaches Duffield behind Class "5MT" 4-6-0 No. 44937 (24/4/53). [*P. J. Wilson*

ALL-OUT ATTACK—Class "2P" 4-4-0 No. 40563 and "West Country" Pacific No. 34044 *Woolacombe* at grips with the 1 in 50 of Devonshire bank as they lift the southbound "Pines Express" out of Bath (9/10/53). [*G. F. Heiron*

TALKING OF TRAINS

THE EDITOR'S NEWS & VIEWS

The Glasgow-Stranraer Line

SEVERAL readers have written to express appreciation of Mr. W. A. C. Smith's article on the Glasgow-Stranraer line published last year. On the subject of its motive power, Mr. J. B. Aird believes that compounds did not begin to work south of Girvan until 1928, the two pioneers being Nos. 1181/2 of Ayr shed. Mr. Aird considers that the Horwich 2-6-0s were probably the most suitable motive power for this line; the compounds put up some fine work, but they tended to "lose their feet" on wet rails. Other interesting engines which took their share of Glasgow-Stranraer work, adds Mr. Aird, were Peter Drummond's hefty 4-4-0s and the celebrated No. 14509 *Lord Glenarthur*, the Whitelegg rebuild of Manson's 4-4-0 which was the first four-cylinder engine in Britain. During the war years the two Highland "River" Class 4-6-0s worked empty stock trains in tandem; and no record of the Stranraer road would be complete, concludes Mr. Aird, without mention of the gallant little Southern Class "D1" 0-4-2 tank No. 2605 (ex-L.B. & S.C. No. 5 *Streatham*), one of three loaned to Scotland during the war, which was several times summoned from its domestic duties at Ayr Townhead to assist hard-pressed "Jubilee" 4-6-0s on their journeys south.

Another correspondent draws attention to the odd arrangements for working Challoch Junction, where the lines from Glasgow and Carlisle to Stranraer meet; both roads are single from New Luce and Glenluce respectively to Dunragit station. There is no signalbox at the junction, which is entirely controlled from Dunragit station box, about 1¼ miles away. In the down direction (i.e., going towards Stranraer) the junction is protected on both lines by sand-drags, and the approach from each direction is governed by a distant and outer and inner home signals, all colour-light. In the up direction the junction splitting signals are in fact the Dunragit starters, controlling the entrance to the single line section about 300 yards from Dunragit station itself (the Dunragit platform starter is designated as an inner home) and are thus considerably over a mile from the divergence they control! The section from Dunragit to New Luce is controlled by a Tyers No. 7 tablet, but that from Dunragit to Glenluce is governed by direction levers in Dunragit and Glenluce boxes. The whole of the Dunragit-Glenluce section is track-circuited; while on the Dunragit-New Luce section track-circuiting extends to a point just inside the junction distant. In addition to the down junction signals already mentioned, Dunragit station is completely signalled with its own down distant, home and starter. Incidentally, the four stop signals in the station area are designated "outer home," "inner home," "home" (this is the platform starter) and "starter": the term "advanced starter" is not used.

American fare attraction

IN their tireless efforts to defeat the strong air and road competition in the U.S.A., a sweeping fare concession has been introduced by a number of railroads in the Western States. This is the "family fare." The facility is restricted to Mondays, Tuesdays and Wednesdays of each week, and on these days the head of a family, paying full fare himself, can obtain half-fares for his wife and children up to the age of 22, while children under five in his family are given free travel. "Family tickets" are available on any train, first or "coach" (the equivalent of our third) class, and on the crack trains where supplements are added to the ordinary fare, these extra charges are reduced in proportion. The systems which have introduced this attractive scheme are the Sante Fe, Chicago & North Western, Union Pacific, Rock Island, Burlington, Milwaukee, Great Northern and Northern Pacific; some other roads have also put it into practice where their routes compete with the lines just mentioned. By comparison, we hear that on British Railways a campaign is afoot to stop the reappearance of the "Starlight Specials" next summer because last year's traffic was so heavy that the operating authorities were unable to cope with the number of relief trains that had to be put on!

Going abroad this year?

AN outstanding addition to next summer's Continental services will be a through train between Boulogne and Munich, running in times yet to be announced. Another new service to Germany will be provided by a railcar, second class only, between Ostend and Cologne,

which will connect with the 10 a.m. service from Victoria and bring the traveller into Cologne at about 8.30 p.m.; the return working from Cologne will leave at 9.46 a.m. and connect with the boat train due into Victoria at 8.50 p.m. In addition to its through vehicles for Graz, Klagenfurt, Belgrade and Athens, this summer the 9.20 p.m. "Tauern Express" from Ostend Quay is to include daily a through carriage for Rijeka, on the Jugoslav border. Its relief is to run daily, leaving Ostend at 9 p.m., and will be named the "Kærnten (Carinthia) Express"; as much as possible of the South German and Austrian traffic will be loaded on to this train. Another addition to next summer's Continental timetables will be a through service between St. Malo and Bordeaux.

Self-announcing Trains

TRAINS will soon announce themselves on platforms 8, 10 and 12 at Stratford, Eastern Region. At present all 12 platforms there are equipped with loudspeakers embodied in a normal public address system, which is operated by a female announcer. However, the greatest number of trains stopping at this station are electric and have a rather limited number of descriptions, particularly during the peak periods, when 16 trains stop at one platform in an hour. The possibility of automatic announcing was therefore investigated and the present scheme adopted. In future, as a train routed to platforms 8 or 10 draws near the station, it will operate the track circuit connected with the signalling system, which in turn will switch on a special form of tape reproducer connected to the station loudspeaker system. The loudspeaker will then start announcing "The train approaching number — platform will call at . . . ." As the train draws up at the platform a further signal switches the tape reproducer over to a second series of announcements: "The train standing at number — platform will call at . . . ." The particular announcement required will be pre-selected by push-button control in the signalbox on a panel providing for 24 different announcements; the push-button equipment will permit of up to four announcements being selected and stored for each platform group, the announcements being broadcast in sequence as each train approaches and arrives at the station.

News from Cheshire

COMMENTING on the illustration of the Crewe-Northwich push-and-pull on page 408 of our November, 1953, issue, Mr. J. Morris writes that this service is used mostly by workmen, particularly those from Crewe plant. Until it was withdrawn, ex-L.N.W. 2-4-2 tank No. 6680 was for years the regular engine on these trains; now the Ivatt 2-6-2 tanks are the customary power. Once a year this service has a gala day; this is the occasion of the Cheshire Football Cup final, held at Crewe, when the Crewe-Northwich service is swollen to six- or eight-coach rakes and there is usually a relief train or two. A larger engine is pressed into service on such days, probably a 2-6-4 tank or a Class "4" 0-6-0. Elsewhere in Cheshire, structural work is in progress in connection with the Stockport-Levenshulme colour light programme. A yard of 16 sidings is being laid in to serve the new petrol storage depot at Goostrey, on the Crewe-Manchester line; this layout will be controlled by a new 55-lever signalbox, and some extension of colour light signalling also is involved. Modernisation has been carried out at the Northwich (C.L.C.) motive power depot, from which Crewe South shed diesel shunters are now operating.

NEWS IN BRIEF

● A cut-rate day fare of 8s. by any train, any day, has been introduced between Leeds (Central or City) and Manchester (Victoria or Exchange) by the N.E.R. Similar fares are available to Manchester from Bradford Exchange (7s.) and Halifax Town or Huddersfield (5s. 6d.).

● Automatic left-luggage lockers are being introduced to a number of Western Region stations. The first installation was opened at Paddington in mid-November, and others will follow at Cardiff (General and Queen Street), Plymouth, Birmingham (Snow Hill) and Chippenham.

● The Pennsylvania Railroad, U.S.A., has introduced a new hand-carried electronic device for detecting rail flaws in the permanent way. Similar to a military portable mine-detector, it gives audible warning of faults. As the ganger slides the detector, broom fashion, along the top of the rail at a joint, he hears in his earphones a steady high-pitched tone which drops to a growl whenever the detector passes over an imperfection.

● To facilitate the possible future working of the largest B.R. types to Cleethorpes, the existing 40-year-old, 65-ft. turntable is to be replaced by a 70-ft. installation.

● The new lightweight German diesel train (*see October*, 1953, *issue*, *page* 377) has been touring Greece and Yugoslavia prior to entry into service between Hamburg and Basle.

● Last November 30 the Canadian Pacific intro duced a two-car diesel train, titled the "Dayliner,"- between Toronto and Windsor, Ontario. Covering the 226 miles in 4 hours, including seven intermediate stops (that at London, Ontario, is of 15 minutes' duration), it makes the fastest run in Canada's timetables.

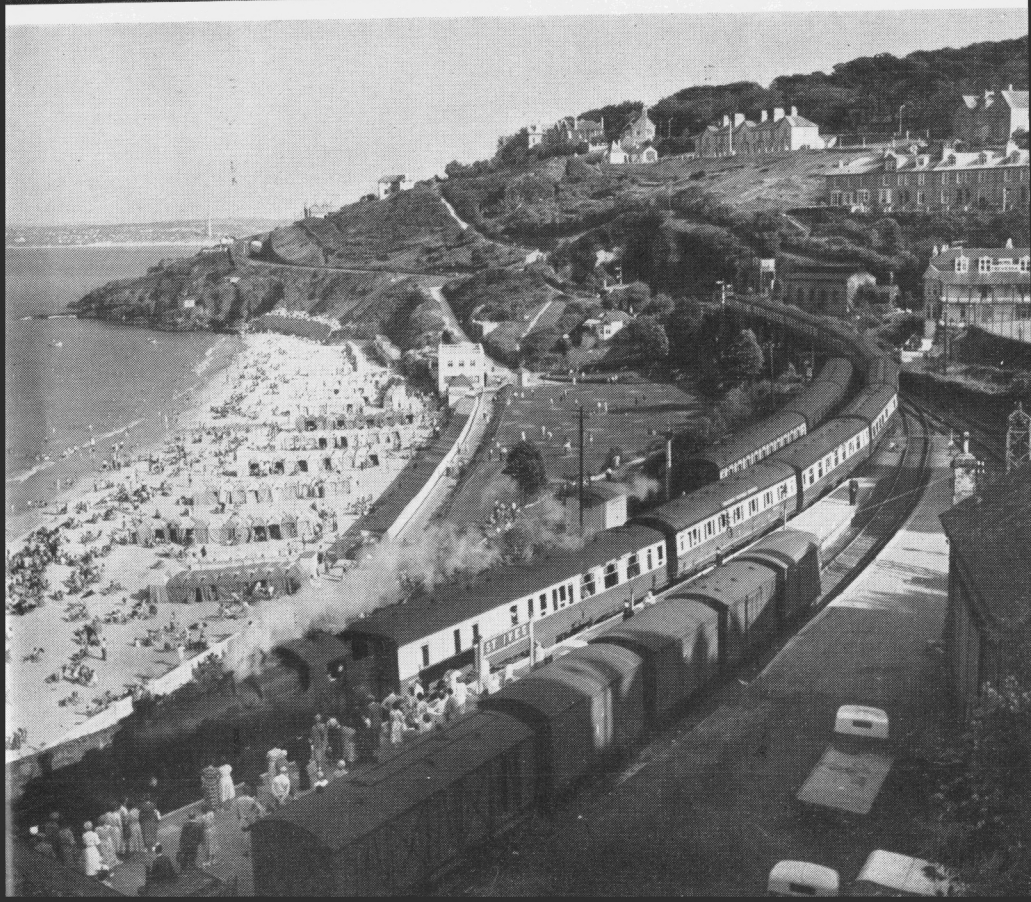
● London Transport is now to restore the original pre-war livery of maroon and gold, as well as their names, to its Metropolitan electric locomotives.

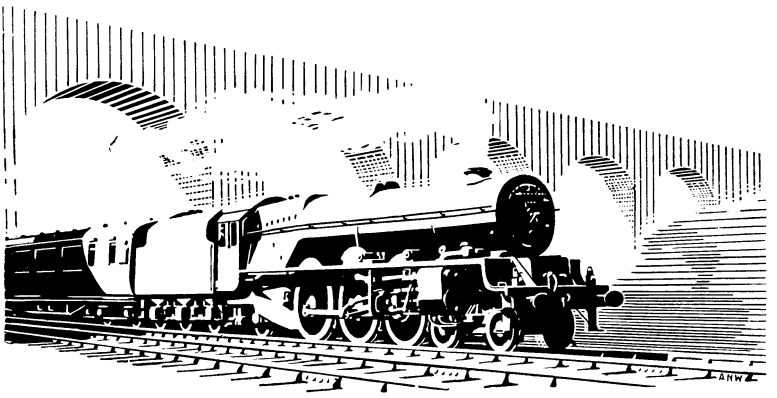
FACING PAGE

Memories of the Summer

Above: "Hall" Class 4-6-0 No. 4992 *Crosby Hall* heads a train of returning holidaymakers out of Kingswear to the Midlands (9/53). [*T. Lakin*

Below: Welcome to Cornwall! Bank holiday crowds turn from the sea to greet the Saturday "Cornish Riviera Express" as it rolls into St. Ives behind a 2-6-2 tank (1/8/53). [*B. A. Butt*





Fine London Midland Running via Northampton

By
CECIL J. ALLEN
M.Inst.T., A.I. Loco.E.

AS my most recent references in these columns may have given an unfavourable impression of current London Midland locomotive performance, I owe it to the enginemen of that Region to describe certain runs of which I have lately received details from correspondents, for these witness to the extremely fine work that is being done by keen crews when they have the chance. This was particularly the case during the period in October when Kilsby tunnel was under repair; extra time was allowed to all trains for the diversion through Northampton, but the runs about to be dealt with show that some of the drivers and firemen took such a pride in their task as to win back all the arrears.

Of these efforts one of the most outstanding was timed by "Lex" on the 10 a.m. from Blackpool to Euston, whose crew—I am only sorry that the log gives no note of their names—were 5 min. late away from Stafford, but actually were into the terminus 2¼ min. early, Northampton loop and all! Moreover, the train was a heavy one, 15 bogies of 489 tons tare and 525 tons gross, and the engine was not a Pacific, but one of the highly competent rebuilt "Royal Scot" 4-6-0s, No. 46100 *Royal Scot* herself.

A good start was made, Rugeley, 9.3 miles, being passed in 12 min. 25 sec.; speed rose to 70 m.p.h. before Armitage, and to 76½ at Hademore troughs. To Lichfield, 17.3 miles, took 19 min. 26 sec.; to Tamworth, 23.6 miles, 24 min. 24 sec.; and by Atherstone, 31.3 miles in 31 min. 5 sec., *Royal Scot* was just inside "even time." On the gentle rise here speed fell to 63 m.p.h., and after a maximum of 69½ before Nuneaton, the minimum at Bulkington was 59. Nuneaton, 36.5 miles, was passed in 35 min. 45 sec., and with a good sprint at 71 m.p.h. beyond Brinklow the train drew slowly past the centre of Rugby station in 49 min. 20 sec. (51 miles).

For the Northampton line a more severe slack is made at Rugby than for the main line, and speed was reduced here to 31 m.p.h. Up the 1 in 300 past Kilsby the engine picked up steadily to 51 m.p.h. at milepost 78, and down the long 1 in 250 from there to Northampton speed reached 78 m.p.h.; the 6.9 miles from Rugby to milepost 78 took 8 min. 15 sec., the next 10 miles were run off in 8 min. 34 sec., and Northampton, 70.1 miles from the start, was passed in 70 min. 2 sec. A prolonged slack was made here, to 22 m.p.h.; up the 1 in 200 that follows the engine was not pressed, as speed did not rise above 40½ m.p.h., and there was another lengthy slowing, to 24 m.p.h., to cross over to the fast line at Roade.

Because of this last slack, it was not possible to take full advantage of the descent to Castlethorpe troughs, on which the highest speed attained was 68 m.p.h., but excellent work was done onwards to Tring, much of it on gradually rising grades and with speeds unbrokenly between 62 and 65 m.p.h. until the final drop to 60 at Cheddington and 55½ at Tring summit. Finally there came a lively dash for London, speed reaching 80½ m.p.h. at Kings Langley, and, after an easing to 67 through Watford, 77 at Wembley. Despite 8 min. spent over the final 5.4 miles from Willesden, the times into Euston were 68 min. 38 sec. from Northampton, 65.8 miles; 58 min. 10

sec. from Roade, 59.9 miles; 44 min. 25 sec. from Bletchley, 46.7 miles; 29 min. 54 sec. from Tring, 31.7 miles; and 18 min. 3 sec. from Watford, 17.4 miles. Willesden Junction, 130.5 miles from Stafford by this route, was passed in 130 min. 40 sec., and Euston, 135.9 miles, was reached in 138 min. 40 sec. Had the main line *via* Weedon been taken, this run, unchecked throughout by signal or permanent way slacks, would have been completed in not more than 130 min. for the 133.6 miles, or within 2 min. of the pre-war timing of the up "Comet," then a considerably lighter train.

"Goliath" writes of another up run, on the "Midday Scot," on which the efforts of Driver W. Parsons, of Crewe North shed, to recover the time lost by the Northampton circuit, would almost certainly have succeeded but for a patchy fog that in places was dense. The engine was Pacific No. 46249 *City of Sheffield*, and the 15-coach load weighed 473 tons tare and 510 tons gross. Starting 2 min. late from Crewe, an energetic climb of the 1 in 177 Madeley bank, at 46 m.p.h., took the train over Whitmore, 10.5 miles, in 16 min. 23 sec., and (apart from a slight easing through Norton Bridge), 74 to 77 m.p.h. was maintained from Standon Bridge to the slack for Stafford. Here (24.5 miles in 28 min. 27 sec.) it was very foggy, and caution enjoined a slack to 40 m.p.h. After Armitage it was clearer, and 81 m.p.h. was reached by Hademore troughs; the minima on the rising grades to Atherstone and Shilton were both 66 m.p.h., and 76½ was touched before the Rugby slowing, to 35 m.p.h. The 41.4 miles from Milford to Brinklow had been reeled off at an average of 69.2 m.p.h.; Tamworth, 48.1 miles, had been passed in 50 min. 46 sec.; Nuneaton, 61.0 miles, in 61 min. 46 sec.; and Rugby, 75.5 miles, in 74 min. 50 sec. By this point Driver Parsons had turned his 2 min. late into 5¼ min. early.

Up the 1 in 300 to milepost 78 there was a gradual acceleration to 54 m.p.h., but the descent to Northampton was hampered by fog, which eventually compelled a stop in Castle station, 94.6 miles from Crewe, in 97 min. 47 sec. Another stop was enforced at Roade, the 5.9 miles between these points, including signal checks, taking all but 12 min. Then followed a lively sprint to Watford, the 42.5 miles from Roade taking 40 min. 12 sec. start to stop; speeds were 74 m.p.h. before Wolverton, 66 at Denbigh Hall, 72-74 all the way from Bletchley to Cheddington, 64½ over Tring summit, and 81 at Hemel Hempstead. The time of 12 min. 49 sec. for the 15.0 miles from Bletchley up to Tring with this load was particularly fine. At Watford again it was very foggy, and there was another signal check between Watford and Euston (the 17.4 miles took 22 min. 30 sec., or 21½ min. net), but the arrival at Euston was no more than 7 min. behind the normal advertised time of 10 p.m.

From the same recorder I have received details of two runs by the down "Midday Scot," from Rugby to Crewe, on both of which there was substantial recovery of time lost by the Northampton deviation. On one of these, most unusually for this train, the engine was a rebuilt "Royal Scot," No. 46119 *Lancashire Fusilier*, with a 13-coach load of 408 tons tare and 440 tons gross; the start from Rugby was 13 min. late. With speeds of 76½ m.p.h. through Nuneaton and 75 at Polesworth, "even time" had been bettered by Tamworth (27.4 miles in 26 min. 52 sec.); and such speeds as 61 m.p.h. up past Lichfield and 73½ before Rugeley both bespoke excellent work. Rugeley, 41.7 miles, was passed in 39 min. 30 sec., and Stafford, 51.0 miles, in 48 min. 20 sec., at a reduced speed of 45 m.p.h. On the gradual rise to Whitmore speed rose to as much as 65½ m.p.h. at Standon Bridge, and Whitmore (65.0 miles) was cleared in 62 min. 4 sec., which meant that 7 min. had been recouped from Rugby. There was a signal check outside Crewe, making the total time 74 min. 30 sec. for the 75.5 miles, instead of the 80 min. allowed, but the net time was 73¼ min.

On another run Pacific No. 46252 *City of Leicester*, with 413 tons tare and 445 tons gross, on leaving Rugby was only 7 min. late, notwithstanding the diversion, and stopped at Crewe 1½ min. early, having taken 71 min. 22 sec., or 70½ min. net (there was again a signal check outside Crewe), for the 75.5 miles from Rugby. On this run all the speeds were higher—79½ m.p.h. at Nuneaton, 74 at Atherstone, 80½ after Polesworth, 62 minimum after Lichfield, 72½ before Rugeley, 53 (slack) through Stafford, 67½ at Standon Bridge, 65½ over Whitmore, and a final sprint at 86 past Betley Road, to which point the 65.1 miles from Brinklow had been run at an average of 68.5 m.p.h. Nuneaton was passed in 16 min. 15 sec., Tamworth in 26 min. 20 sec., Rugeley in 38 min. 44 sec., Stafford in 47 min. 10 sec., Whitmore in 60 min. 48 sec., and Betley Road (70.6 miles) in 65 min. 15 sec. from the start—a grand effort indeed.

Another time-regaining effort, this time in the up direction, figures in a letter from a correspondent who wishes to remain anonymous; this had nothing to do with the Northampton diversion. The train concerned was the 8 a.m. from Blackpool to Euston, made up to 485 tons tare and 520 tons gross, and though normally non-stop from Crewe to Euston, it had been stopped outside Stafford owing to a door

STOPPING PASSENGER

Top: W.R. "2251" Class 0-6-0 No. 2208 skirts the Somerset coastline near Watchet with a Taunton-Minehead train (9/53). *[B. A. Butt*

Centre: Compound 4-4-0 No. 41115 coasts along the North Wales sea wall near Penmaenmawr on the 4.55 p.m. Llandudno Junction-Holyhead train (1/9/53). *[R. E. Vincent*

Bottom: Class "4MT" 2-6-4T No. 42680 beats a tattoo on the Newark crossing as it cuts across the East Coast main line with the 3.48 p.m. Nottingham-Lincoln train (23/5/53). *[J. P. Wilson*

being open. As a result Lichfield was passed 20 min. late. A magnificent effort was then made, reducing the arrears to 13½ min. at Rugby, 9 min. at Bletchley, 6 min. at Tring, and 3 min. at Willesden; and there was a triumphal entry to the terminus no more than 2 min. behind time. From Stafford station, passed at 10 m.p.h., the time taken for the 133.6 miles to Euston was 122 min. 10 sec.; from Lichfield, 116.3 miles, 102 min. 55 sec.; from Nuneaton, 97.1 miles, 86 min.; from Rugby, 82.6 miles, 72 min. 40 sec.; from Blisworth, 62.8 miles, 54 min.; from Bletchley, 46.7 miles, 41 min. 5 sec.; from Tring, 31.7 miles, 28 min.; from Watford, 17.5 miles, 16 min. 45 sec.; and from Willesden 7 min. 20 sec.

The 69.9 miles from Welton to Willesden were run at an *average* of no less than 73.3 m.p.h., while the 125.8 miles from Milford to Queens Park, Rugby slack included, were reeled off at an average of 69.0 m.p.h. My correspondent is unable to give any details of the actual speeds other than that Tring was surmounted at a minimum of 60 m.p.h., and that maxima were then recorded of 85 m.p.h. at Kings Langley, and 89 at Wembley; the pace here must certainly have been pretty hot, as the average speed from Hemel Hempstead down to Willesden was 76.6 m.p.h. Most unfortunately the recorder failed to note the number of the engine, but it was almost certainly a Class "7" 4-6-0, either a converted "Royal Scot" or a converted "Patriot." The work done would have satisfied the most exacting of the pre-war schedules, and with a considerably heavier load than was ever run on the pre-war "Comet," with its 128 min. schedule from Stafford (except when that train was double-headed at weekends).

I have now to record an experience of my own, on a northbound trip to Carlisle on which I wished both to sample the 8 a.m. down "businessmen's" express from Euston, on its fast timing of 143 min. for the 140.7 miles from Watford to Crewe, and also to investigate the working of the 11.25 a.m. from Birmingham to Glasgow, which in the past has been so frequent a source of delay to the winter "Royal Scot." On the former I proposed to travel from Crewe to Carlisle.

The 8 a.m. down, which I joined at Watford, behaved itself impeccably. Our engine was Pacific No. 46245 *City of London*, with a 13-coach train of 415 tons tare and 440 tons gross; as is usual on a Monday, the tail of four vans for Holyhead is not attached, but there were two additional passenger coaches in the formation. Timekeeping proved to be a simple matter; out-of-course delays were confined to a 30 m.p.h. permanent way caution at Castlethorpe, and a 30 m.p.h. signal check at Betley Road, but despite both we made the run in 141 min. 30 sec. We began by accelerating to 56½ m.p.h. up the 1 in 335 from the start, and then flagged slightly to 54; 77½ m.p.h. was reached beyond Cheddington and 76½ at Wolverton; after the Castlethorpe check we accelerated to 57 m.p.h. up the rise to Roade and were doing 74 through Weedon. This took us through Rugby, 65.2 miles, in 65 min. 58 sec.; Stafford, 116.2 miles, was passed in 114 min. 16 sec.; and the rest was easy.

The Birmingham train ran into Crewe on time, but we were 4 min. late away, due to the tardy arrival of the West of England connection. We had a sparsely-filled train of 11 coaches, 383 tons tare and 400 tons gross, and the appearance at the head of it of rebuilt "Royal Scot" No. 46119 *Lancashire Fusilier* aroused the interesting reflection that never previously had I timed an engine of this particular type over Shap, all my experience of recent years having been with Pacifics and an occasional "Jubilee." It was destined in several ways to be an extraordinary run—one of the kind that makes it difficult to fathom the mentality that lies behind the driving.

First of all, when we had reached 54 m.p.h. at Minshull Vernon, acceleration suddenly ceased, and down the falling grades where speed normally rules in the 70's, we stuck steadily at 54; then, where most drivers ease, ours suddenly spurted to take Weaver Junction in the facing direction at 66! Approaching Warrington, with all signals off, we slowed to 35 m.p.h., for no reason immediately apparent, and then had a signal check to 35 at Winwick Junction. Most of the way from Golborne Junction to Wigan the train crawled at between 37½ and 40 m.p.h. (over a considerably longer length than that called for by pitfall restrictions), and a slack as severe as to 44 m.p.h. over Euxton Junction was a distinct novelty. In these conditions it was not surprising to take 65 min. 7 sec. for the 51.0 miles from Crewe to Preston. Nevertheless, so ultra-generous is the allowance for pitfall slowings that we were through Preston on time!

Then began a performance of a very different character. First of all, up the gradual rise from Garstang speed rose to a steady 66 m.p.h. But the driver (who, I could not help thinking, had a rooted aversion to curves!) slowed with such exaggerated deference to 35 m.p.h. round the curve at Lancaster No. 1, that from Preston to Carnforth (27.3 miles in 29 min. 13 sec.) we dropped 1¼ min. The 2¼ miles at 1 in 134 up beyond Carnforth, begun at 65 m.p.h., were finished at 52½ m.p.h.; Milnthorpe was passed at 69, and on the first stage of the long climb to Grayrigg

the engine was steaming so well as to be blowing off when we passed Hincaster Junction.

We stormed through Oxenholme at 50 m.p.h.; at the top of the 1 in 124 speed was 46 m.p.h., and at the end of the subsequent 1 in 131 it was 45; the last 2 miles at 1 in 106 to Grayrigg were surmounted at 38 m.p.h. The 12.8 miles from Carnforth to Oxenholme had taken 13 min. 6 sec., and the 7.1 miles thence up to Grayrigg 9 min. 29 sec. Tebay was passed at 64 m.p.h., and the allowance of 10 min. up the culminating 5.5 miles to Shap Summit was cut to 8 min. 24 sec. I was travelling in the second coach, from which no sound of the engine's exhaust could be heard; when I put my head out of the window a cheerful chirruping was audible at the head end, but nothing like the noise normally made by the Pacifics—yet we were breasting the 1 in 75 at a speed that barely fell below 30 m.p.h.—29½ to be exact. From Carnforth to Summit the allowance of 42 min. for the 31.4 miles had been reduced to 37 min. 40 sec.—an excellent piece of work —and the train was now 3 min. early.

What next? A quite ludicrous descent to Carlisle, on which any excess over 60 m.p.h. was promptly checked by brakes; for the curve at Clifton, normally taken at 75 m.p.h., we slowed most respectfully to 52; long before Penrith we had reduced to 47 m.p.h., and had to put on steam again well before the station to get *up to* the 50 m.p.h. speed restriction(!); then 66 m.p.h. at Calthwaite was quickly checked to 52; and finally the quickest entry to Carlisle that I remember for a long time—6 min. exactly from Wreay—just scraped us to a dead stand on time, in 175 min. 59 sec. for the 141.0 miles from Crewe. We had dropped 3 min. from Shap Summit to Carlisle, and the taking of many curves at well below the speeds for which they are canted gave riding less comfortable than that which is normal.

Next day, on the up " Midday Scot," the running was even more odd. We left Carlisle 5½ min. late with 15 on, 478 tons tare and 515 tons gross. Pacific No. 46233 *Duchess of Sutherland* made very heavy going up to Shap, taking 52 min. 27 sec. for the 31.3 miles to the summit, which we passed 9 min. late. From Oxenholme to Milnthorpe the engine was blowing off steadily, but little of the loss was being recovered; and the 69.1 miles to Lancaster took 87 min. 43 sec. instead of the 85 min. allowed. Here we were detained no less than 6½ min. by leisurely station working, and left 9¾ min. late. Far better work was now done, with speed rising to 76½ m.p.h. at Brock, but Preston was not ready for the train, and we were stopped outside for 25 sec., finally stopping in the platform in 26 min. 16 sec. for the 21.0 miles from Lancaster. Smart station work got us away 9½ min. behind time.

Then came a really first-class performance, in complete contrast to the start from Carlisle. To climb up to Euxton at a speed reaching 50 m.p.h. is most unusual with this load, and equally so to reach 61½ m.p.h. at Balshaw Lane and to top the 3 miles up past Coppull, partly at 1 in 106-114, at 53 m.p.h. There was a severe permanent way check at Standish, followed by a speed of 56½ to 60 m.p.h. all the way through the mining area from Wigan to Winwick Junction—something I have not known for over 14 years past, and all with perfectly smooth riding. Time was now being regained substantially, and with 64 m.p.h. through Warrington, 57 over the Ship Canal, 67 at Moore, 60 at Weaver Junction, and a steady 72-73 past Winsford, we were a bare 2 min. late by Coppenhall Junction, having run the 33.1 miles from Wigan in 32 min. 14 sec. Had not Crewe proceeded to stop us when halfway up the platform (in 57 min. 6 sec. from Preston, schedule 66 min.) we should have been less than 1 min. late.

At Crewe No. 46233 was replaced by No. 46257 *City of Salford*, and with a restart no more than 2 min. late I looked forward to a punctual arrival at Watford. Not a bit of it! A 15 m.p.h. permanent way slack at Norton Bridge made us 7½ min. late through Stafford; with fair running from there we just held our own to Rugby, covering the 51.0 miles in 52 min. 7 sec. instead of the 53 min. allowed, but were still 6½ min. late. There was a signal check to 20 m.p.h. here, instead of the normal 40 m.p.h. speed restriction. The driver eased to 40 m.p.h. through Kilsby tunnel, presumably for permanent way reasons, and then proceeded to take the entire descent to Weedon at 52 m.p.h., instead of the usual 70 to 75, so that we were 10½ min. late at Roade.

Then, after a permanent way slowing at Castlethorpe, which helped to make us 14 min. late through Bletchley, he proceeded to show that there was no shortage of steam by running the 15.0 miles from Bletchley up to Tring in 13 min. 32 sec., with 70½ m.p.h. at Leighton and 62½ over the summit, thereby gaining 2½ minutes! Finally we strolled down to Watford, seldom at more than 65 m.p.h., slowed so severely at Watford tunnel (with all signals off) as to make it necessary to put on steam to reach the platform, and stopped 12¼ min. late in 157 min. 20 sec. from Crewe (schedule 147 min.). One wonders if there is any other country but Britain in which such erratic handling of a locomotive would be countenanced; but fortunately it could not be regarded as typical.

The CALEDONIAN "40" CLASS 4-4-0s

by A. G. Dunbar

DESPITE the numbers of 4-6-0s owned by the Caledonian Railway, and despite what could be termed a good deal of "ballyhoo" regarding certain members of those classes, for many years the principal passenger services were worked by 4-4-0 engines of varied power. Until the advent of the Pickersgill 4-4-0 the top link workings at three sheds were in the care of the McIntosh superheater 4-4-0 type always known as the "40" Class. These engines were the penultimate development of the old "Dunalastair" type introduced in 1898, and for a time were probably the hardest worked engines of the type in Scotland, the more so in view of the services involved and the period in which they were so employed.

Before 1910 the Caledonian, in common with other companies, relied on saturated engines for all passenger working. Due to the fact that these engines were driven on a very late cut-off the coal consumption was very heavy, but as coal was cheap by present standards, little attention was paid to it until rising costs forced a change of viewpoint. In 1910, however, the results of the working of the "Sunny South" trains by the L.B.S.C.R. Marsh 4-4-2 tank fitted with Schmidt superheater focussed the attention of locomotive superintendents all over the country on this new development. Many of them were compelled to consider superheating and the economies accruing from it in an entirely new light. Among them, the Caledonian decided to give the matter some investigation.

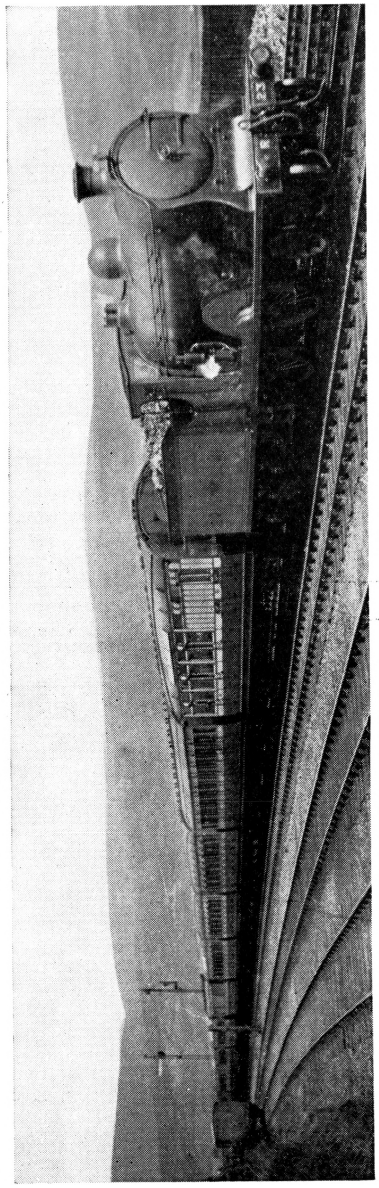
In 1910 an order for four 4-4-0s was in hand at St. Rollox works. These were Nos. 136-9, built to Order No. Y92, and the first three were built as saturated engines with slide valves between 19½ in. by 26 in. cylinders and had 180 lb. working pressure. These engines were fitted with a very fine design of bogie tender, possibly the most symmetrical version of this type ever built and a vast improvement on the other bogie tenders built for previous engines. The principal difference, apart from increased water capacity, was the provision of individual springing to each axlebox, whereas the earlier types had two springs to each bogie, a similar type of springing to that employed on the engine bogies.

It was decided to provide the last engine of this order, No. 139, with superheating. It was given 20 in. by 26 in. cylinders with piston valves above them and the working pressure was reduced to 165 lb.; a Schmidt type superheater was fitted. Thus No. 139, which was turned out of St. Rollox works on July 14th, 1910, had the distinction of being the first superheater engine in Scotland. Of this batch of engines, Nos. 136/7 were sent to Kingmoor Shed, Carlisle, while Nos. 138/9 were sent to Perth. For a short period at this time No. 138 was shedded at Aberdeen, but for many years its home depot was Perth, where it was given to the charge of Driver James Mitchell (far better known by his nickname of "Cuddy" Mitchell). Up to 1923 the Caledonian adhered very faithfully to the "one man—one engine" system, so far as passenger and main line goods locomotives were concerned.

During the remainder of 1910 and into 1911, a series of tests were carried out between Nos. 139 and 138, the saturated engine, between Perth and Carlisle, Aberdeen and Glasgow, from which the superheater machine emerged decisively as the superior engine. In early 1911, therefore, a further four were built at St. Rollox Works, to Order Y97, carrying Nos. 132-5; of these Nos. 132/3 were allocated to Perth while Nos. 134/5 went to Kingmoor.

These five engines were immediately employed on workings such as the 2.20 a.m. Carlisle-Perth "Tourist," the up and down Postals between Perth and Carlisle, and the Aberdeen-London sleeper train in each direction between Perth and Carlisle. Most of these jobs were worked on alternate nights by Perth and Kingmoor, the men being booked off at each end. The new engines proved themselves superior in every way to the older "140" Class of 1906, which had been the mainstay of these trains for three years or so, although it is fair to say that older Kingmoor drivers of that period, such as Ferguson and Lawson, have stated that the saturated engines made better time to Beattock than the superheater engines. Yet the latter had the advantage on the bank itself.

The writer has in his possession an old notebook of the late Driver Lawson of Kingmoor, in which it can be found that with saturated engine No. 143 of the 1906 batch, Beattock was reached day in and day out about 45 to 47 minutes after leaving the Citadel Station. It must be admitted the load was not in any way what it was in later years, but nevertheless the performance was remarkable. Nos. 132 to 135 were



THE LAST CALEDONIAN "40" CLASS 4-4-0 "DUNALASTAIR," No. 123 of the superheated "IV" series, tops Beattock summit with a London express. [*H. Gordon Tidey*

fitted with the Schmidt superheater and later, in 1912-13, a further six engines were built at St. Rollox Works to Order Y101, numbered 117 to 122. Of these the first four had the Schmidt superheater, but the last two of the order, Nos. 121/2, were fitted with what was called then the " Consolidated Superheater," the name given by the Caledonian to the well-known Robinson superheater.

All subsequent new engines built were fitted with the Robinson design, and in Caledonian days it was easy to distinguish which was which. The early superheater engines on most railways were fitted with elaborate forms of smokebox dampers for protecting the superheater elements when the engines were standing or running without steam. On the Caledonian Schmidt engines these were controlled by a small steam cylinder fitted on the right-hand side of the smokebox and operated from the cab by a large brass wheel, but on the Robinson-fitted engines, the damper was operated by a lever arrangement worked from the cab. Later on all these refinements were dispensed with but the dampers remained until the end of the Caledonian Railway as such. In addition Nos. 121/2 were fitted with Mr. J. G. Robinson's patent draught retarder, but lost this equipment after a very short time in service.

The earliest engines were fitted with the Wakefield mechanical lubricator for pistons and valves, but Nos. 121/2 were equipped with Stone's mechanical lubricators for some time. The engines built subsequently had the Wakefield type. About 1922 No. 117 was fitted with an additional Wakefield lubricator for the coupled wheels and bogie axleboxes, and was the only one so treated.

The first four of the last batch built were put into stock in 1912, while the other two were put in service in 1913. Later in the same year a further six were built at St. Rollox to Order Y105, carrying running numbers 43-48, and in 1914 Nos. 39-42 and 123 were constructed to St. Rollox Order Y109 to complete a compact class of 22 engines which shortly were to handle a good deal of the wartime traffic that taxed the railways of Britain to full capacity. These engines were shedded as follows:—

KINGMOOR: 47/8, 121-3, 133/4.
PERTH: 39/45/6, 119/20/32/3/9.
ABERDEEN: 40-4, 117/8.

It is worth noting that from their date of construction to about 1925-6 these engines were at no other shed; they remained strictly where they were first allocated.

As mentioned earlier, the outbreak of the Great War brought a huge increase in traffic after the " over by Christmas " idea was finally disposed of, and the Caledonian found that the growth of traffic, especially on the southern lines, presented a problem

which the Operating Department had never visualised. The southern main line was only a double track and suddenly to increase traffic by over 100 per cent. gave its officials something to think about. In the earlier days troubles were aggravated by the Services, who enrolled all comers; thus the railways lost many men until the drain was checked.

In early 1915 passenger services were greatly decelerated, and late in the same year came the first withdrawal of one of the class, No. 121, which was practically destroyed in the terrible Quintinshill accident of that black month of November, 1915. The circumstances of the accident are well known, and the failure of a signalman to take the usual precautions resulted in a death roll of close on 230. The driver, Frank Scott of Carlisle, and his mate, J. Hannah, were both killed, while another engine of the class, No. 48, was badly damaged. No. 121 was scrapped and replaced by a Pickersgill 4-4-0 in 1916, but No. 48 was repaired and returned to service, the only noticeable difference being that the familiar smokebox wing plates were removed. This modification was stated to have been an experiment to see if these engines and the new Pickersgill 4-4-0 then being built could run without these appendages. It was the only engine of this class so treated until after 1924, although Mr. Pickersgill had them removed from many other engines to conform with his own 4-4-0 type.

About 1912-3, No. 136, the saturated engine mentioned earlier, was fitted with a Weir feed water heater and pump in order that comparative tests could be carried out between the superheater and the feed heater. The outbreak of the war caused the removal of the fitting but later, in 1920, No. 136 was again equipped with a larger version of the same apparatus. At the same time No. 135 was fitted with No. 10 Gresham and Craven injectors instead of the customary No. 9 size, while No. 927 (then a Carstairs engine) was fitted with a Metcalf exhaust injector and was transferred to Carlisle for the test period. The trials were simply termed "Evaporative Tests" and, while no results were ever made public, there can be no doubt that the superheater engine proved superior in every way, since no other engines were fitted with heaters or exhaust injectors.

The tests from the Carlisle end took place on the 5.15 a.m. Carlisle-Glasgow, returning with the 10 a.m. from Glasgow to Carlisle. At the same time what were called coal tests were carried out between Perth and Carlisle, involving Perth engines Nos. 46, 74 (a Pickersgill 4-4-0 built in 1920) and 143 of Carlisle. Their test train was the 9 p.m. Perth-Carlisle, returning with the 4.20 p.m. from Carlisle to Perth the next day. Unofficially all that ever emerged from these tests was statements that the superheater engines came out on top every time, but the saturated engines in the hands of an enterprising crew could show strange bursts of speed at times.

Little published performance data of these engines in Caledonian days exists. The *Railway Magazine* about that time gave some typical runs and some notes collected from odd sources may be of interest. The 5.15 a.m. from Carlisle during the 1914-18 war was always worked by one of these engines to Perth, and once No. 123 with (in Caledonian parlance) "20½" on, about 370 tons, passed Lockerbie in 31½ min. and reached Beattock in 46 min. After the bank engine was attached, Summit box was passed in 23 min., while the subsequent 24½ miles to Carstairs were reeled off in 25½ min. Delays spoiled the rest of the run. On another run No. 134, driven by Ferguson and aided by No. 896, with a load of "22" on, passed Summit box in 75 min. from Carlisle and, after detaching No. 896 there, reached Carstairs 27 min. later. Here the load was cut to "14½" and, while there were delays on to Stirling, the 33 miles from the latter place to Perth were covered in 55 min., including an unpiloted climb of Dunblane bank. South from Perth on the 9.15 p.m. sleeper, with 14 on, there is a record of No. 46, driven by Drury of Perth, reaching Stirling at 10.6 p.m. The Oban portion increased the load to 18½ and, with a departure at 10.20, Coatbridge (24 miles) was reached at 11.13 p.m.; here 22 min. were lost due to faulty signal wires, and the train left 23 min. late at 11.56 p.m. Carstairs was reached at 1 a.m., 36 min. late due to signal checks. From then on Drury, by superb driving, reduced the arrears at Carlisle to 20 min.; the highlight of this performance was a time of approximately 38 min. from Carstairs to Summit box.

On the Perth-Aberdeen section much good work was done for many years by these engines. On the 6.50 p.m. from Perth, Driver Howie, on No. 43, once passed Stanley in 11 min. and reached Forfar (32 miles) in 35 min. with "12½" on, while Driver Imrie, on No. 44, took 34 min. to Forfar and 49½ min. to Bridge of Dun with "16" on. South from Aberdeen, Driver Paxton, on No. 139, was timed to pass Stonehaven (16 miles) in 24 min. and Kinnaber Junction (38 miles) in 49 min. from Aberdeen with "18" on. Driver Middleton, on No. 44, hauling the 7.30 p.m. sleeper from Aberdeen, took 24 min. to Stonehaven, was through Laurencekirk in a further 21 min. and reached the junction at Bridge of Dun in exactly the hour from

THE GLASGOW-ABERDEEN MAIN LINE . . . An Aberdeen-Glasgow Pullman car express passes Luncarty in early L.M.S. days double-headed by McIntosh "Dunalastair IV" Class 4-4-0 No. 14458 and Pickersgill "72" Class 4-4-0 No. 14505. *[H. Gordon Tidey*

Aberdeen. Restarting 3 min. later, he covered the 16 miles to Forfar in 22½ min. and the ensuing 32 miles to Perth in 35 min.; the descent of Strathord bank, between Stanley and Perth, was completed in 8½ min. after an annoying signal check at Ballathie, just before Stanley Junction. Enough has been said to show that these machines could get on top of any job they were given to handle. Incidentally the foregoing notes are mostly from guards' journals and, while not absolutely correct in every detail, they provide sufficient data for examples of performance.

Finally, a remarkable war effort that took place on December 9th, 1917, must be mentioned. During that day a train of urgent van traffic for the Royal Navy arrived at Carlisle and No. 122 was posted to work the train of 29 four-wheeled vans to Perth; the driver was George Irving, and the fireman was G. Robinson, both of Kingmoor Shed. Some of the vans were brake-fitted and I have appended the running times in full in order that the nature of the work done can be appreciated. Stops were frequent, due to shunting for more important traffic, but No. 122 did some good work as the times show.

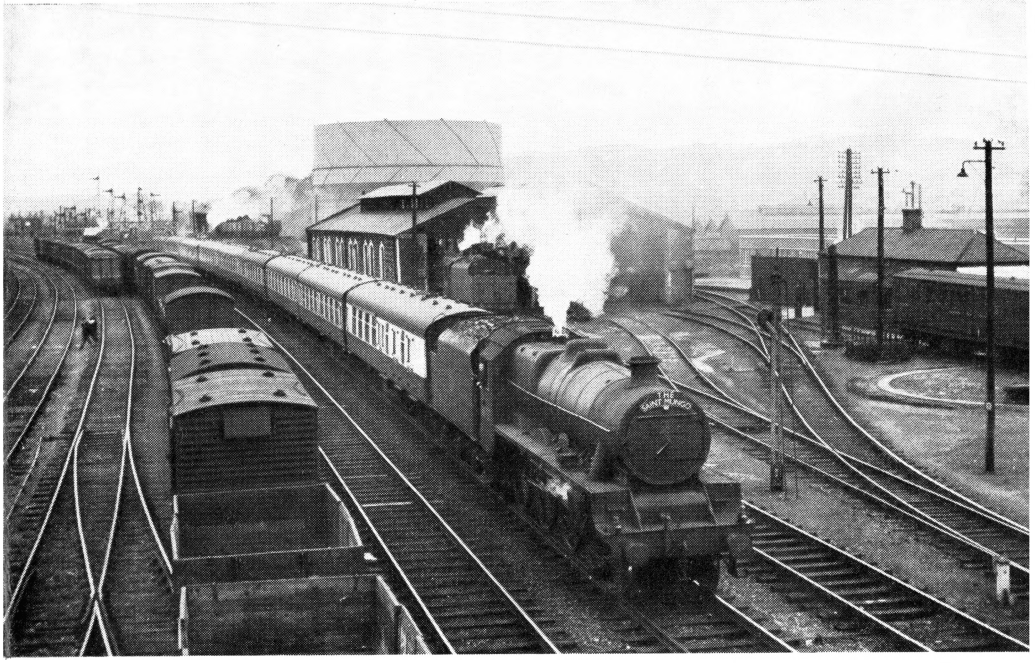
CARLISLE-PERTH, December 9, 1917

Miles		*Arrive*	*Depart*
0.0	CARLISLE		7.18
6.1	Floriston	7.30	7.35
10.2	Quintinshill	7.43	7.48
13.0	Kirkpatrick	7.55	8.03
16.7	Kirtlebridge	8.10	8.25
25.8	Lockerbie *	8.45	9.10
34.5	Wamphray	9.20	9.28
39.7	Beattock†	10.00	10.20
49.7	*Summit*	Passed 10.50	
57.8	Abington	11.12	11.20
73.5	Carstairs	11.55	12.10
97.0	*Greenfoot Box‡*	1.18	1.30
106.1	Greenhill	Passed 1.50	
117.8	Stirling	2.18	2.45
150.8	PERTH	4.00	

*Points here were jammed by frost.
†4-6-2T No. 952 attached as banker here.
‡Fire cleaned here.

With the appearance of No. 117 and onwards, the cylinder diameter of these engines was increased to 20½ in., and the boiler pressure was raised to 170 lb. Later the earlier engines also had their working pressure increased. No further changes took place until after the grouping. After 1923 the engines were gradually repainted in the Midland red, while the smokebox wing plates were removed. Most of them remained at their usual sheds until the advent of the compounds, when their dispersal began. Commencing in 1926, new boilers were made for the class and quite a few were reboilered until the introduction of the boiler pool idea at St. Rollox Works meant that the Pickersgill 4-4-0 boilers were available for use on the McIntosh engines. The bogie tenders were removed and six-wheel tenders from scrapped engines substituted, a change which did much to spoil their appearance.

However, the subsequent history of the class is just mentioned here as a matter of interest, as it was not the intention to deal extensively with it. Two of the class have been scrapped and it is doubtful if the others will last much longer.



. . . PAST AND PRESENT—" Jubilee " Class 4-6-0 No. 45727 *Inflexible* pulls out of Stirling with the up " Saint Mungo." [*Eric Treacy*

A 1903 plan for G.N.R. SUBURBAN ELECTRIFICATION

By R. E. Vincent

AT the turn of the century many main line railway companies with suburban traffic problems were seriously considering the possible benefits of electric traction. In London the Waterloo and City, the City and South London and the Central London tube lines were flourishing and the electric tramcar network was soon to be greatly expanded. At this time, too, the London population was spreading itself into what was then the surrounding countryside and the pattern of suburban railway travel was changing rapidly. It was in this atmosphere that Oliver Bury, the General Manager of the Great Northern Railway, requested Dick, Kerr & Company to prepare a report on the possibilities of electrifying the G.N. suburban lines as far as New Barnet. The one essential condition was that the electric trains must increase the passenger-carrying capacity of the line by 40 per cent. over the existing steam services.

In the handsomely bound 16-page report which appeared on June 29th, 1903, an interesting and ambitious scheme was outlined for the electrification of the G.N. lines from Moorgate to High Barnet, Edgware, Alexandra Palace, New Barnet, and to Enfield, at that time the terminus of the present-day Hertford loop.

The report recorded that the average speed of the steam trains was 18.5 m.p.h. with a maximum start to stop speed between stations of 33.9 m.p.h. The daily mileage on these suburban lines was 3,526, of which 850 miles were run by the North London Railway. The peak occurred from 8 a.m. to 10 a.m. when, during each of these hours, 27 trains with a carrying capacity for 17,712 passengers ran to London; ten of these trains, with room for 6,560 people, belonged to the North London. The evening peak was not so heavy, as the number of passengers was spread over a longer period of time. The minimum headway between the steam trains was 3 minutes.

It was proposed to use the existing G.N. four-wheeled suburban stock with a bogie motor driving coach at each end and a motor coach in the centre. The High Barnet trains were to be made up of 12 vehicles, as compared with the 11-coach steam trains, and New Barnet trains were to consist of 16 vehicles, including two intermediate motor coaches. The carrying capacity of the new rakes would have been 7.92 per cent. more than that of the steam trains, so that, in order to achieve the specified 40 per cent. increase, it would

have been necessary to increase the speed of the electric trains and reduce the minimum headway between them. It was calculated that 1,200 h.p. would be required to fulfil these conditions with a 12-coach train, and each traction motor was therefore to be 100 h.p. On the 16-coach New Barnet trains the extra motor coach would provide the additional power required.

The total weight of the loaded driving motor coach, with control gear and 48 passengers, was to be 24 tons and the intermediate motor coach, without control gear but carrying 72 passengers, would have weighed nearly 25 tons. The total carrying capacity of the 12-coach trains would have been 702, compared with 972 in the 16-coach main-line trains. The trains were to have been capable of accelerating from rest to 20 m.p.h. in 14.6 seconds and of running at a maximum speed of 50 m.p.h. To work the full service outlined in the report, 38 trains would have been required for the G.N. line and 20 for the North London services.

The G.N. management had suggested New Southgate as a suitable site for the power station, but in the report Dick, Kerr & Co. recommended that it should be built near the site of the G.N. Electric Lighting Station, in the fork where the Canonbury line joins the main line just south of Finsbury Park. From this position a certain amount of direct current could be fed to the track, whereas at New Southgate, the supply would have to be high tension a.c., all distributed through sub-stations.

FACING PAGE

A TRIO OF TANKS

Top: Class "C12" 4-4-2T No. 67368 heads out of Stamford (Town) on to the Essendine branch with a goods for Stamford (East) (15/3/52). [*P. H. Wells*

Centre: W.R. "3100" Class 2-6-2T No. 3103 enters St. Fagans with the Saturday 2 p.m. Porthcawl-Cardiff train (5/9/53). [*S. Rickard*

Bottom: The Mardock signalbox is switched out, for it is August Bank Holiday, as Class "N7" 0-6-2T No. 69714 makes for St. Margarets with a branch train from Buntingford, Herts. (3/8/53). [*F. J. Saunders*

Three 2,000-kilowatt generators were proposed to supply 650 volts d.c. direct to the current rail and four 2,000-kW. generators were to supply 10,000-volt three-phase alternating current at 25 cycles per second to rotary converter sub-stations at Wood Green, Winchmore Hill, Woodside Park and near Mill Hill on the Edgware branch. The high tension current was to be transmitted in three-core cables, any two of which would be capable of taking the full load in the event of breakdown.

Each electrified track was to be equipped on the four-rail system. It is interesting that provision was made for modification of the insulation of the negative rail to conform to that of the Inner Circle line, over which it was suggested Great Northern trains might have to run. It was proposed to electrify four tracks from Kings Cross to Holloway, five from there to Wood Green and the double tracks on the Enfield, High Barnet and Alexandra Palace lines as well as the single track from Finchley (Church End) to Edgware. This made a total of 80.22 track miles, including 6 miles for additional sidings and platform lines. Although the scheme covered the lines from Moorgate to New Barnet, no mention was made of plant and equipment for the line beyond Kings Cross (York Road).

Considerable ingenuity was shown in drawing up new timetables for the proposed electric service. In every case the overall journey times disclosed a substantial improvement by electric traction. Steam trains from Kings Cross to High Barnet took 38 minutes, which the electrics were to cut to 29 or possibly 28; similarly the 28 minutes by steam from Kings Cross to New Barnet were to be reduced to 23. The express runs from New Barnet to Kings Cross, calling at New Southgate and Finsbury Park, were to take 17 minutes as against 19 by steam, and the 18-minute run to Enfield with stops at Finsbury Park and Wood Green was to be cut to 16½ minutes. Electric trains were to be booked to stop at Finsbury Park for 1 minute and at all other stations for 20 seconds.

The increase in the number of trains (to achieve the 40 per cent. increase in carrying capacity) was to be effected by reducing the headway between trains from 3 to 2 minutes. It was suggested this could be done safely in view of the expected improvement in running times and the avoidance of terminal delays at Kings Cross. This, it was claimed, would enable the number of trains run between 8 and 10 in the morning to be increased from 54 to 77 which, with their greater capacity, would produce 57 per cent. more passenger accommodation.

From the running times given in the proposed timetable of electric trains it was interesting to note that on some of the station-to-station runs the steam trains were calculated to run faster than the new electrics. For example, between New Barnet and Oakleigh Park in the up direction the steam train averaged 31.2 m.p.h. to cover the ground in 1½ minutes, whereas the best the electric train could do was 1 min. 53 sec., an average of 24.88 m.p.h. In the down direction, however, the steam train took 4 min. 30 sec. from Kings Cross to Holloway, an average of 20.6 m.p.h., whilst the electric was expected to take 3 min. 13 sec. at 28.8 m.p.h. There are, however, some apparent inconsistencies in the running times tabulated in the report; the Wood Green-Hornsey section, for

instance, 12 chains further than New Barnet-Oakleigh Park, only took 2 min. 9 sec. by electric compared with 2 min. 30 sec. with steam. This reversal of the comparative performances of steam and electric trains over nearly similar distances suggests that the steam figures had been obtained from actual train running records, whilst the electric figures were probably based on theoretical performance.

The report maintains a discreet silence on the cost of installations and rolling stock; this was probably confided privately to Mr. Bury. It does, however, record that the comparative operating costs of the two services worked out at £180 for 3,600 train miles daily by steam service, conveying 17,712 passengers per hour into London during the peak, and £213 daily for 5,230 miles by electrics capable of conveying 27,876 passengers an hour.

It would be unreasonable to criticise the scheme in the light of 50 years' subsequent development, but it is not difficult to indicate two features which may have led to its rejection. In the first place, it had been assumed in producing the timetable that the trains of the North London Railway would be electrically hauled through Finsbury Park. In practice this must have presumed that the North London would co-operate by electrifying their services to the G.N.R., but I imagine it would have been very difficult to have persuaded them to embark on such a costly scheme mainly for the benefit of the Great Northern. Whether they were approached, I do not know, but whatever the outcome, the sandwiching of steam trains between electrics at Finsbury Park would, in the words of the report, " prejudice the working of the whole scheme." Another factor which must have caused the raising of a few eyebrows among the G.N. operating staff was that in the proposed timetable 92 up and 35 down trains were booked to call at Finsbury Park in the two hours between 8 and 10 a.m. Just over a train every minute during this time would have strained the resources of the station to the limit under favourable conditions, but if anything went wrong the results would have been disastrous. In any case, it is doubtful whether the capacity of the manually signalled line was sufficient to deal with all these stopping trains, 13 down empty stock trains and the main line services too.

● The "SUD EXPRESS" ●

IN last June's issue we mentioned the re-introduction of the " Sud Express " on the S.N.C.F. between Paris and the Spanish border. Over the 361 miles between Paris and Bordeaux, the " Sud Express " makes daily the longest all-the-year-round non-stop run in the world. Speeds are more restricted on this electrified route than on the celebrated Dijon-Lyons line, but some highly interesting running takes place nevertheless. Recently, for example, the up train left Hendaye 32 minutes late, hauled by 2-D-2 electric locomotive No. 5550, and lost a further 12 minutes owing to p.w. checks, but 13 minutes had been regained to Bordeaux, thanks to consistent running over the 92 miles from Dax at the permitted maximum of 75 m.p.h. Only four minutes are allowed at Bordeaux to deal with passengers and baggage, water the train, change crews and examine the train. On this occasion the " Sud Express " was away promptly as usual, and despite the fact that it is scheduled to run the 361 miles to the capital in 317 minutes and also that 17 minutes were lost on this day through p.w. checks, arrival in Paris was only 7 minutes late. The 361 miles were reeled off in 293 minutes actual time, for a start-to-stop average of 73.9 m.p.h., although a maximum speed over 85 m.p.h. is permitted only between Coutras and Angouleme and between Poitier and Tours. The load was a light one of 8 vehicles totalling about 390 tons tare.

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DIVERSIONS AND ACCELERATIONS

● Mr. M. B, Dean writes:

SIR,—On page 414 of your November, 1953, issue it is stated that the East Coast main line was closed at Potters Bar from 12.40 a.m. until midnight on Sunday, September 13th. Such was the intention of the authorities, but in actual fact the work lagged so far behind schedule that it had to be continued into the small hours of Monday morning, and the line was reopened at about 6 a.m. I presume it was during this extension period that the 2.34 a.m. newspaper train stuck on the 1 in 55 at Wood Green; this train runs on weekday mornings only—the Sunday equivalent is the 2.40 a.m. to Boston. (*No; the Sunday train, misquoted in our article, was the culprit.*—ED.) It should be mentioned that although all trains were booked to stop at Hitchin for water (but not in all cases to take up or set down pilotmen), in actual fact the 12.5 p.m., 3 p.m. and 4.45 p.m. ex-Kings Cross and the 10.40 a.m. ex-Newcastle ran through Hitchin without stopping.

Concerning the diversion of L.M.R. trains in connection with the Kilsby tunnel work reported on page 415, the up L.M.R. freights via Canonbury actually ran into Camden instead of Broad Street. Whence came the report of " Jubilee " No. 45571 working the 1.10 p.m. from Broad Street on September 29? This smacks of a story handed on from person to person by word of mouth and being altered, probably one figure at a time, in the process. The actual engine was " 5MT " 4-6-0 No. 44751.

The drawbar horsepower credited to " A4 " No. 60014 at Stoke Summit on the down " Plant Centenarian " (*November issue, page* 422) is far higher than anything previously recorded with an " A4," and ranks equal to the maximum outputs of the " P2 " 2-8-2s in their prime; I should be interested to learn how this figure was arrived at. Does it assume that 70 m.p.h. was sustained on the 1 in 178? Perhaps it is based on the train resistance calculated from the Johansen formula which, as is well known, does not apply to streamlined engines at speeds in excess of about 60 m.p.h.

The actual acceleration of the 7.45 a.m. (*quondam* 7.50) Newcastle-Kings Cross is 27 minutes compared with the summer schedule, and 36 minutes compared with last winter, not 32 and 41 minutes respectively as stated by Mr. Cecil J. Allen on page 425 of the same issue. The Grantham stop of the 7.53 a m. ex-Sunderland has been in force for several years and does not replace a Grantham stop of the other train, which hitherto ran non-stop from Selby to Peterborough. Each train is now limited to 11 coaches instead of 13 and 14 respectively.

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The Kent & East Sussex Revisited

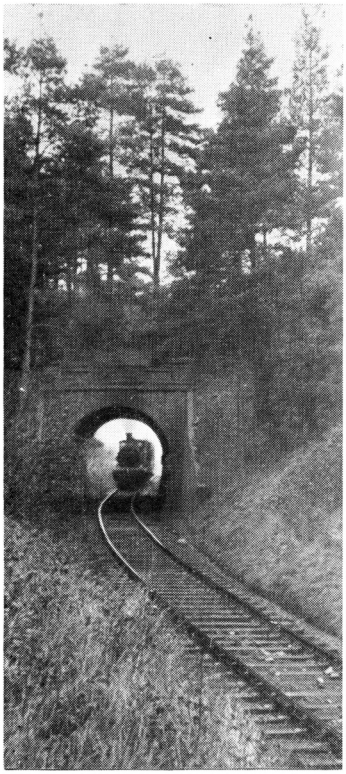
by R. C. RILEY

SHORTLY before last summer's adjournment there was a brief debate in Parliament on British Railways' attitude to branch line closures. This resulted from a vigorous protest by the Member for Hastings against the proposal to withdraw the Kent & East Sussex passenger services. He claimed that the B.T.C. attitude towards branch lines was altogether wrong and that the wholesale withdrawal of passenger services in rural areas adversely affected the national economy by making country life less attractive. The Minister of Transport replied that even if he had the power he would not make the B.T.C. work lines which had no hope of economic success. He quoted figures for a week in January on the K. & E.S.R. " when the maximum number of passengers using any one train had been 8, the average 5, with 118 over the K. & E.S. line in 80 different trains " (the mathematical processes by which this average and such an impressive tally of K. & E.S. trains were arrived at were *not*, unfortunately, disclosed). That did not justify a bus service in place of the trains, he claimed; moreover, the area was served by other bus services not running along the railway route.

My recent visits to the K. & E.S.R. proved that while this average might well apply to trains on the Headcorn-Tenterden section, those on the Tenterden-Robertsbridge section were reasonably well patronised. On a more recent census taken on the latter section there were over 400 passengers conveyed by 36 trains during one week. While this figure does not represent a high average per train, the freight traffic over the line is sufficient to justify one and sometimes two trains daily. Therefore, it would cost little more to run these two as mixed trains, with tickets issued by the guard, and the stations between Robertsbridge and Tenterden could revert to unstaffed halts. There is little justification for the retention of the Headcorn-Tenterden section, which nearly always has lost money and is adequately covered by bus services. While it is true that the Robertsbridge-Tenterden area is served by buses, to make the journey by bus from one town to the other can only be done by way of St. Leonards!

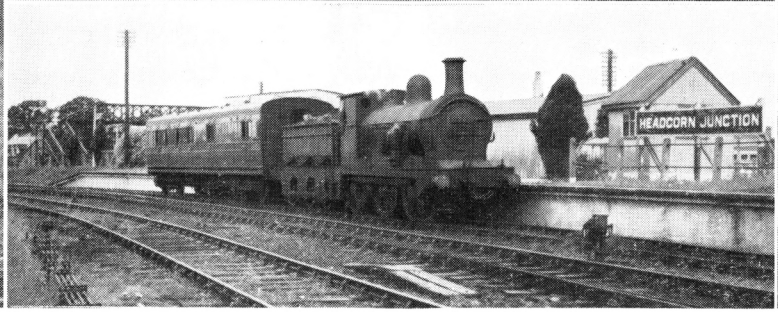
Enthusiasts may argue that the late Col. Stephens managed to make the line pay—indeed when that well respected man died some of his fortune was shared among his employees. However, since nationalisation the old free and easy methods have been discarded, and British Railways' improvements to bring the line up to the higher standard required of it have not been achieved without considerable expenditure. From Robertsbridge to Wittersham Road the line has been relaid entirely; much of the second-hand track used came from the closed Elham Valley line, relaid during the war to cope with armoured trains. Standard fencing with concrete posts is now being erected, and the line even possesses an upper quadrant signal, the outer home at Robertsbridge. Furthermore, introduction of the 44-hour week has meant a substantial increase in staff. If this expenditure is to be justified, some improvements in the passenger service might be expected in order to encourage traffic; as the service is to be withdrawn the money spent will have been largely wasted. The local inhabitants were hardy enough to ride about in the old back-to-back Ford cars, the noise of which could be heard almost from one end of the line to the other, so the rolling gait of a lightweight diesel car would be child's play to them. Tenterden Town station is centrally situated for its 4,000 inhabitants, while Robertsbridge station is also conveniently placed. Excepting Salehurst, the other stations are a little remote from the villages whose names they carry.

The hop-picking season, although it provides a lucrative traffic for the line, also sets its own problems. Hop-pickers are accustomed to bringing with them everything but the kitchen sink—some of them even bring that! As the off-loading of such items delays main line trains at Robertsbridge, through hop-pickers' specials are run at the beginning and end of the season to and from London Bridge and Northiam. A " Terrier " at either end of the train provides the motive power over the branch, the same arrangement being in force for the " hop-pickers' friends " specials which are run on Sundays during the season. On Friday evenings and Saturday afternoons additional trains are run also, and it is estimated that some 2,000 hop-pickers' friends were carried during the current season. The main hop gardens on the branch are those of Messrs. Guinness in the Bodiam and Junction Road neighbourhood. British Railways lorries convey the hops from the gardens to the stations, whence they are loaded on wagons and despatched to Park Royal Brewery. There is also some return traffic from Park Royal of spent hops used as fertiliser.



Above: St. Michael's Tunnel. [*K. W. Wightman*

Centre upper: Class " AIX " 0-6-0T No. 32678 at Rolvenden after taking over the 8.50 a.m. through train from Headcorn to Robertsbridge (17/8/53). [*N. R. Knight*

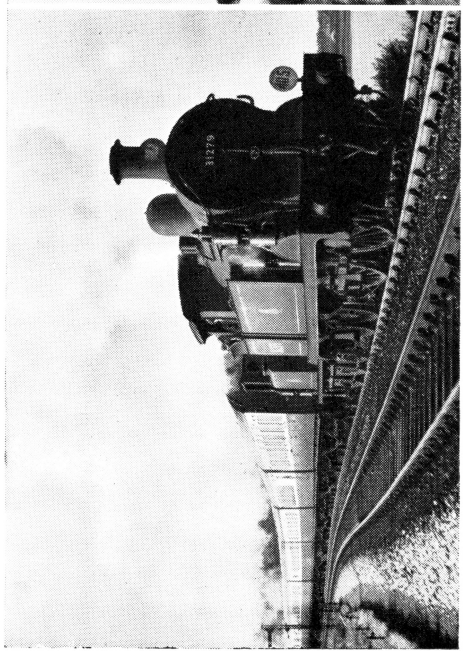


Centre lower: The K. & E.S. platform at Headcorn, with Class " OI " 0-6-0 No. 31370 on the Rolvenden train (27/7/53) [*R. C. Riley*

Above: High Halden Station, with its picturesque hand-operated signal dating from early K. & E.S. days [*K. W. Wightman*

KENT & EAST SUSSEX SCENES

Below: Empty stock leaves Hastings at 8.30 a.m. for Robertsbridge (*left*) double-headed by Class " H " 0-4-4T No. 31279 and Class " AIX " 0-6-0T No. 32636 (photographed near West St. Leonards). It forms the 10 a.m. " Hop-pickers' Friends' Excursion," seen leaving Robertsbridge for Northiam (*right*) headed by Class " AIX " 0-6-0T No. 32636 and banked by No. 32655 of the same class (20/9/53). [*S. C. Nash*



Although little of the old atmosphere remains the line is well worth visiting, and time is running short, for passenger services will be withdrawn on January 4th, 1954. Between Robertsbridge and Rolvenden, ex-L.B.S.C. "Terriers" are the largest engines permitted. From Robertsbridge the line curves round sharply, crosses the first of many river bridges, and then traverses the main London-Hastings road, on one of the two level crossings on the branch which are granted the luxury of gates. At this point also there is a siding into the flour mills, while the first of several unorthodox signals is to be seen. The River Rother and its tributaries run beside the line for most of the way to Rolvenden, and the district is very susceptible to flooding. The last serious flood took place on November 27th, 1952, when the Robertsbridge level crossing was flooded and nearly 2 feet of flood water covered a mile of the line between Salehurst and Junction Road Halts, washing out the track completely; No. 32670, which was waiting to work the 12.20 p.m., was marooned at Robertsbridge and was sent to St. Leonards shed until the line could be made fit for resumption of traffic on December 1st.

Salehurst Halt (1¼ miles) and Junction Road Halt (2½ miles) both consist of small wooden platforms. The little "Terrier" with its single coach runs briskly along through pleasant pastoral scenery here, liberally interpreting the overall speed restriction of 25 m.p.h., its Stroudley whistle ringing out to give warning of its approach to the ungated crossings.

Bodiam station (3½ miles) is a corrugated iron structure, with sidings at either end. Beyond here an excellent view is obtained of the nearby 14th century castle, maintained by the National Trust and much visited by tourists, for whom the bus service is poor; unhappily the train service is worse. Northiam (7 miles) handles a good proportion of the passenger traffic on the line, and has a fair-sized station with sidings and a run-round loop. The signals here were removed recently; one carried a Rother Valley Railway "Warning to Trespassers" to the end. Wittersham Road (9½ miles) is a small halt platform, and it was near here, on March 26th, 1949, that the 5.50 p.m. from Robertsbridge came to grief, when No. 32678 and its single coach left the rails and plunged down the low embankment to embed themselves in a marshy ditch. The coach was recovered without difficulty, but the "Terrier" remained in its undignified position for a month, while the track renewal then in progress was speeded up to permit the passage of two 36-ton cranes, which soon recovered the 28-ton engine.

Rolvenden (12 miles) is well known as the site of the former works and running shed of the K. & E.S.R. Here could once be seen an odd miscellany of old engines and rolling stock in various stages of dereliction and decay. The tidying-up process started before nationalisation and has long since been completed. Nowadays Ashford shed is responsible for maintenance and boiler wash-out of the engines working the line, and for the last few months no spare engine has been kept at Rolvenden. No. 32670, an 81-year-old veteran sold to the Rother Valley Railway in 1901 and now the last surviving K. & E.S.R. engine, is the regular "Terrier," No. 32655 or No. 32678 relieving when it goes to Ashford for attention. During this year's hop-picking season No. 32636 was loaned to St. Leonards shed for the special weekend workings. Nos. 31064 or 31370 are the "O1s" most often used on the Headcorn-Tenterden stretch, while Nos. 31048/65 are also available at Ashford. The coaches in use at present are all 3rd brakes and comprise early L.S.W.R. corridor type Nos. S2650, S3165 and S3175, and S.E.C.R. "Birdcage" type No. S3291S; all retain malachite green livery.

The line climbs and curves to Tenterden Town (13½ miles), where the station boasts a large brick building and two platforms. The imposing tower of the parish church overshadows the station and a stone's throw beyond is the broad tree-lined High Street. Beyond here the line is to be abandoned completely, as both passenger and goods traffic are of negligible proportions. The morning mixed train from Headcorn arrives with much whistling from the "O1," detaches its freight portion outside the station, then moves into the platform. Perhaps a single wagon is trundled down the falling gradient into the siding, then the brake van is similarly propelled on to the rear of the coach, and the train leaves for Rolvenden. A mile further on is St. Michaels Halt, almost immediately followed by the short tunnel of the same name. Only the barest essentials of track maintenance have been carried out at this end of the line, and it is wisest here to follow the instructions not to lean out of the window. In contrast to the corrugated iron buildings at the other end of the line, both High Halden Road (15¾ miles) and Biddenden (18 miles) have wooden buildings, the latter having traces of a second platform no longer in use. The line falls sharply to the halt of Frittenden Road (19½ miles), and then curves round to reach Headcorn (21 miles); only the nameboard on the K. & E.S.R. platform reveals that this is a junction station. The layout here was considerably modified in early S.R. days when the main line was quadrupled through Headcorn.

Had the K. & E.S.R. been able to fulfil its ambition of completing this line through to Maidstone, instead of fizzling out like a damp squib at Headcorn, it might have proved prosperous instead of being a steady drain on the company's finances and absorbing much of the profit made on the other end of the system. Now the last surviving passenger service of Colonel Stephens' railways is to go; the Headcorn section will be taken up, and the Tenterden Town-Robertsbridge section will be retained for freight traffic, St. Leonards shed assuming responsibility for the branch engine. It is said that in these days of full employment the number of hop-pickers grows less each year, so perhaps in Septembers to come, we may yet see them outnumbered by K. & E. S. railway enthusiasts!

● British Railways carried 4,195,000 more passengers in August, 1953, than in the corresponding month of 1952, an increase of 4½ per cent. The biggest improvement, one of 7.3 per cent., was achieved by the Southern Region.

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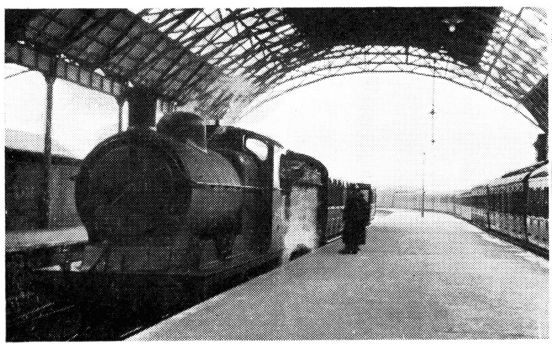
● Work has begun on a short deviation line some 6 miles north-east of Doncaster, on the Grimsby-Wakefield line, which will replace the River Don Navigational Canal swing bridge described in our February, 1953, issue by a fixed structure of sufficient height to clear waterborne traffic.



A last trip on the G.N.-L.N.W. JOINT LINE

IT was only recently that I made my first run over part of the former Great Northern & London North Western joint line from Welham Junction, near Market Harborough, to Saxondale Junction, near Nottingham. It is a route distinguished for the almost completely rural nature of the country served in the 47¼ miles it comprises (if the stretch of ex-G.N. track into Nottingham and the even shorter bit of ex-Midland road into Market Harborough be included). The train service was infrequent; there was a weekday only passenger service of two trains each way between Nottingham (Victoria) and Market Harborough and between Melton Mowbray and Leicester (Belgrave Road), with an afternoon service restricted to the Market Harborough - Melton Mowbray section. When I made my last journey traffic was light and this combined with the condition of the stations suggested early closure. In fact, the passenger trains were withdrawn on December 7th last and all stations from Leicester (Belgrave Road) to Barnstone and Redmile, inclusive, were closed, though goods traffic will continue. There is talk, however, that two unadvertised workmen's trains will run daily between John o' Gaunt and Leicester, and Tilton and Market Harborough, in view of the infrequent local bus service.

Up to its closure there was still plenty of interest in this service. First, there were the signs of joint ownership—the sight of somersault signals pulled off for ex-Midland 4-4-0s and the fact that tickets headed "G.N. & L.N.W." were still on sale at these two quaintly named stations, Harby & Stathern and Long Clawson & Hose. Another item of interest was the combined name board and lamp supports at Harby & Stathern. We had a fair amount of time to admire them, for our train, the 9.7 a.m. from Melton Mowbray (where we had joined it on its way up from Northampton) waited at Harby & Stathern whilst a staff conference took place. The upshot was that we were to run into the Low Level station at Nottingham, for earlier that morning there had been a derailment between Victoria and High Level.

On arrival at Nottingham Low Level we made the short walk to Victoria merely to pass time and sample the special bus service put on to take people from Victoria to High or Low Level stations, the buses leaving at the advertised departure times of the trains whose passengers they were conveying. Back again at Low Level, we had 45 minutes' wait, caused, we heard, by the necessity to send our Midland 4-4-0 down to Colwick to be turned. The station men were naturally in reminiscent vein with the old station back in use. They said it had been closed to passengers nine years ago, but, like Birmingham's Curzon Street for some time after New Street replaced it for regular services in the 1850s, it had dealt with some special passenger traffic, notably the staff and performers of a big circus which had been on at Nottingham some time before. It was certainly an experience to wait for a passenger train on a station all but one of whose platforms were filled with coal wagons.

O. H. Prosser

HISTORICAL NOTE

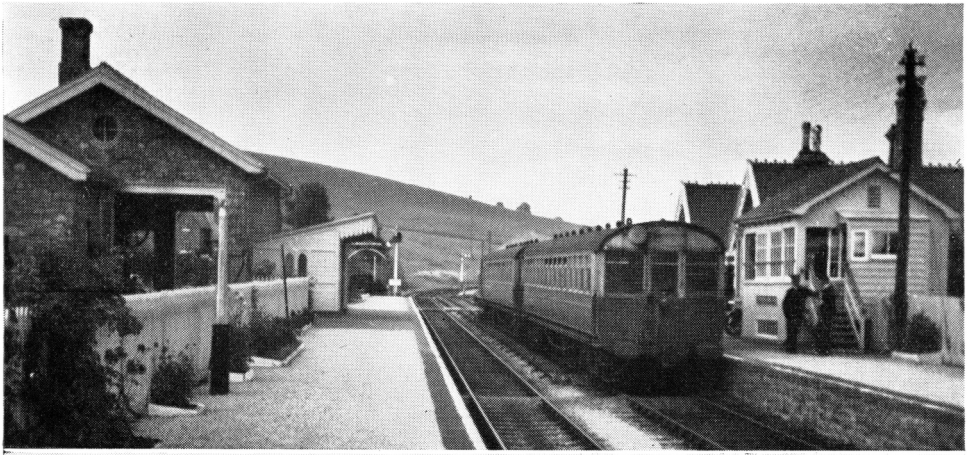
The G.N.—L.N.W. joint line from Saxondale Junction and Bottesford, on the Grantham-Nottingham line, to Welham Junction, Market Harborough, was opened to traffic in 1879, after several other attempts to project railways across Leicestershire in the earlier '70's had come to naught. The G.N.R. built a connecting line from Bottesford to Newark and four years later added a branch from Marefield Junction into Leicester. In earlier days some interesting through services used the joint line, including one from Euston to Nottingham and another from Leamington to Scarborough.

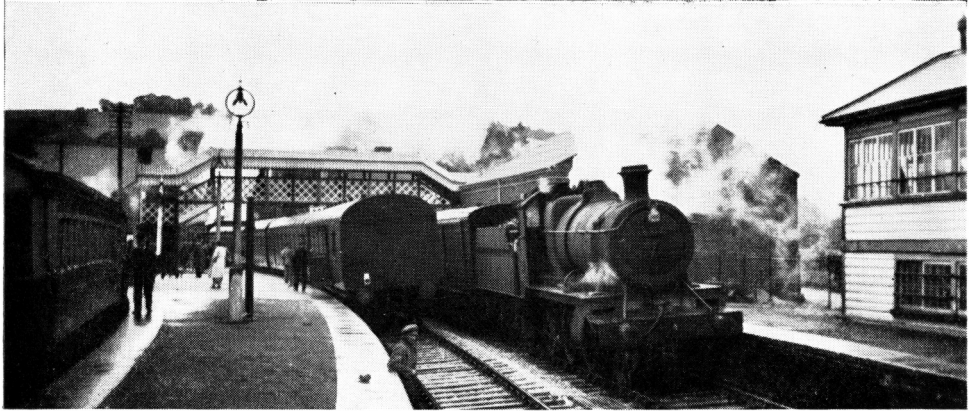
WHERE THE PASSENGERS WALK NO MORE—**Left:** Class "J11" 0-6-0 No. 64438 arrives at Leicester (Belgrave Road) with a train from Grantham (22/8/53).

Centre: Harby & Stathern station—notice the combined station nameboard and lamp standards. Class "2P" 4-4-0 No. 40683 heads the 10.47 a.m. Nottingham-Northampton train.

Right : A view of John o' Gaunt station.

[H. C. Casserley, O. H. Prosser (2).





THE EXE VALLEY BRANCH

Top: Thorverton station. The 5.20 p.m. Dulverton-Exeter waits to pass a down train.
Centre: A view of Dulverton, looking east; the Exe Valley trains use the right-hand face of the right-hand platform. A Class " N " 2-6-0 is arriving on the 4.16 p.m. Barnstaple-Taunton train.
Bottom: Dulverton, looking west. The 1.43 p.m. from Exeter has just arrived on the extreme left and is connecting with the 2.5 p.m. Taunton-Barnstaple and the 2.5 p.m. Barnstaple-Taunton; the latter is headed by W.R. 2-6-0 No. 6317 *[G. Freeman Allen*

An afternoon on the

EXE VALLEY BRANCH

by G. FREEMAN ALLEN

TO any enthusiast who finds himself in Exeter with a spare afternoon on his hands I warmly recommend a half-day trip up the Exe Valley branch to Dulverton. Particularly north of Cadeleigh, where the steep, wooded walls of the river valley close in on the railway, the scenery is some of the most appealing in the West Country, and there are no better vantage points than the open saloons of a Western auto-train from which to enjoy it. On purely railway counts, the line curves and climbs quite sharply, so that speeds are restricted to 35 m.p.h. throughout, while on the return journey you may be entertained to a lively gallop down the main line from Stoke Canon to Exeter with the engine in rear. Above all, you will find the heart-warming sight of a branch which, despite a competitive bus service, is apparently in good commercial health.

The 1.43 p.m. from Exeter St. David's is nicely timed for the half-day tripper—there are cheap fares—but don't begin to form an adverse impression of the service when the advertised hour goes by and there is no sign of action, for the working book departure is at 1.47 p.m., after the up "Cornish Riviera" has rolled through at 1.45. You follow this aristocrat as far as Stoke Canon (3⅜ miles), where the Exe Valley branch diverges from the main line. This modern-looking station was built as recently as 1932, when its platforms were provided for new up and down main loops flanking the through main line. The up platform is an island, the outer face of which caters for the Exe Valley branch trains. In the down direction (i.e. *from* Dulverton) the latter sometimes have to kick their heels at Stoke Canon for quite a time awaiting a path on the main line; there is direct access from the branch to the down platform, but its rusty state indicates little use, and normally Exe Valley trains in both directions use the branch platform, the down trains crossing to the main line west of Stoke Canon station.

From Stoke Canon the single-line branch and the Exe river bear left, away from the tributary Culm river with which the West of England main line keeps company from Tiverton Junction, and your train soon reaches Bramford Speke Halt (4¼ miles). The grey stone buildings here are now in private use and a corrugated iron shelter is the only public accommodation on the single platform; for travellers joining at this and other unstaffed halts on the branch tickets are available on the train.

Thorverton (6⅛ miles) still witnesses to its great event of recent years, in the early hours of July 1, 1952, when the Royal Train was stabled there from 3 a.m. to breakfast time, while H.M. The Queen was on her way to the Royal Show at Newton Abbot, and the Royal Saloon was parked under the signalbox windows; the train was hauled up from Stoke Canon by a couple of "Manor" Class 4-6-0s. Potted geraniums hang from the station awning, and white-painted stones embellish the beautifully kept flowerbeds backing the asphalted platforms. This is the first station of importance on the branch and a passing place. Beyond the station a siding curves away to a mill on the river which used to provide the railway with considerable grain traffic.

As at Bramford Speke, the station buildings at Up Exe Halt (6⅞ miles) are in private occupation. Two hundred yards on the Exeter side of the halt is Up Exe Crossing, which, like others on the branch, is protected by distant signals whose levers are interlocked on the Crossing ground frame with the gate locking levers. It is not unknown for both up and down distants at one of these crossings to be off simultaneously, although the branch is only single line!

Burn Halt (8¾ miles) is a single overgrown wooden platform, which offered us no custom on my last Exe Valley trip—in fact, thus far almost all the numerous passengers joining the train since we left Exeter had boarded it at Thorverton. Most of them were good Devonshire women bound for an afternoon's shopping in Tiverton, who had organised themselves into a garrulous knitting bee down one side of the saloon.

So far our 2-6-2 tank, No. 5525—the auto-fitted 0-4-2 tanks are more usual branch power—had enjoyed a fairly easy passage, but beyond Burn Halt the valley begins to narrow and the line begins to climb, though gently at first. The name of the next station, Cadeleigh (10¾ miles) is a misnomer, for that village is 3 miles away to the west, whereas the village adjacent to the station is Bickleigh; this local confusion, however, is to avoid railway muddle that might arise from the fact that there is another Bickleigh station in Devon, on the Plymouth-Tavistock branch. The Exe Valley station is most picturesquely

situated, with a view over its rambler-twined fences to some exquisite thatched cottages and a weir.

The valley is now much narrower, and I couldn't help recalling "The Titfield Thunderbolt" as we ran neck-and-neck with a country bus on the road which parallels the branch for some distance. The ruling gradient steepens to about 1 in 137 here, before the country flattens again and council houses on the outskirts of Tiverton come into view. This part of the town is served by the single platform of West Exe Halt (13½ miles), and beyond it the railway veers east, across the Exe and along the south side of the town to Tiverton station (14⅛ miles).

The Stoke Canon-Tiverton stretch was the first section of the branch to be conceived. It had been authorised as the Exe Valley Railway in June, 1874, but the powers granted to this concern were taken over in the following year by the Bristol and Exeter Railway, which promptly pigeonholed them. It was not until after the Bristol and Exeter had been amalgamated with the G.W.R. that the line was completed and opened in May, 1885. Originally the branch joined the West of England main line south of Stoke Canon station, which was moved to its present site in 1894. Some months before this part of the branch carried trains, however—in August, 1884—the Tiverton and North Devon Railway, which had been authorised in July, 1875, was in operation. This made up the remainder of the line from Tiverton to Morebath Junction; the local concern maintained a nominal independence until 1894, but its line was G.W.-operated from the start. Both sections of the branch were laid to standard gauge, unlike the Tiverton-Tiverton Junction branch, which had to be converted from broad gauge in 1884.

If for nothing else, Tiverton is known to enthusiasts for its castle—the gateway to it is about all that remains—which gives a name to 4-6-0 No. 5041, but it is also an important agricultural centre and the home of a large lace factory dating from 1816; a mile from the town is Blundells School. The railway installations at Tiverton are not particularly remarkable. There are a sizeable goods yard and a two-platform station with a bay on the down side for the Tiverton Junction trains, which branch right at the conclusion of some 300 yards of double track beyond the station. The signalbox is some distance from the station on the down side. A feature of its equipment, and of the boxes at Thorverton, Cadeleigh and Bampton, is a ganger's key. When one of these keys is released simultaneously by two adjoining boxes, the electric train staff instruments in use are locked, making it safe for gangers' trolleys to occupy the line. The staff instruments can be freed without the necessity of returning the key to either of the boxes by replacing one of the telephone apparatuses between Bampton and Bolham, once the trolley has been lifted off the line.

Out of Tiverton the line descends at 1 in 73 to the simple paved platform of Bolham Halt (16 miles) and thereafter enters one of the most attractive sections of its run. The branch has now dropped almost to the level of the rushing Exe and threads a steeply wooded part of the valley. With hardly a dwelling in sight, the country is completely unspoiled and the train's only company may be a farmer and dog in search of the rabbits which start from the engine's chatter in scores in the early evening. Then the branch begins its serious climb to the level of the Taunton-Barnstaple branch at Morebath Junction.

Climbing up through Cove Halt (19¼ miles), the ruling gradient is 1 in 63. This is another little station in a charming setting, embellished by colourful ramblers and overlooking a beautiful garden by the side of a stream. There is a signalbox here to control the distants guarding the level crossing and the access to a tiny siding, but it is not a block post; its bells merely repeat the signals transmitted to each other by Tiverton and Bampton boxes, its flanking block posts. Just beyond the station the valley is scarred by a quarry, which sends the hideous supports of its aerial ropeway striding up the slopes on the up side of the line.

Beyond Cove the scenery becomes a little wilder, for now great wooded cliffs overhang the opposite bank of the river, but a mile from the station the railway, still climbing at steeper than 1 in 70, and the river part company to straddle an island of high ground. Hereabouts the line twists and turns in the narrow valley in its efforts to gain altitude quickly and avoid expensive earthworks. At Bampton (21⅛ miles), another two-platform crossing place, it emerges into somewhat flatter country. There is a quarry here, too, served by a siding, though most of its output, I believe, now goes by road.

After a further 1½ miles' ascent over more reverse curves, you come in sight of the Taunton-Barnstaple branch at Morebath Junction, for which both lines break into double track to form another passing place. The Exe Valley branch makes a climbing, left-hand curve at 1 in 66 into the junction, beyond which the track singles again past the concrete platform and wooden shelter of Morebath Junction Halt (22¾ miles). Descending once more at 1 in 58 the railway runs parallel with the

southern flank of Exmoor and then the train is soon ambling into the left-hand face of the down island platform of Dulverton (24⅝ miles), which is the Exe Valley berth. There is a tiny 23 ft. diameter turntable in the small goods yard. The station, which is just within the borders of Somerset, is about 2½ miles from the town it serves, and if you have taken the train from Exeter which I mentioned earlier, you will now have ample time for a delightful walk through the woods fringing the banks of the Exe to Dulverton proper for tea and also to stroll back at your leisure for the 5.20 p.m. to Exeter.

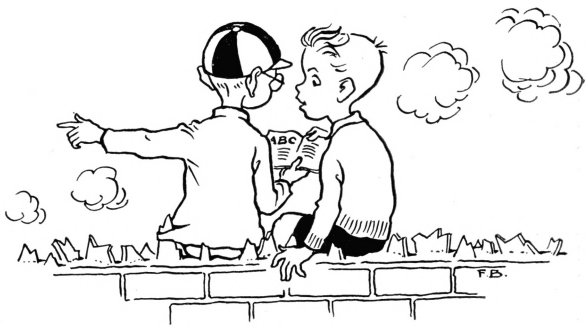
There are eight daily Exe Valley passenger services from Exeter to Dulverton and seven in the reverse direction; the eighth balancing working from Dulverton, the 10.10 p.m., is the last train of the day and is diverted from Tiverton to Tiverton Junction, whence it returns empty to Exeter down the main line. In addition there is an evening train from Exeter to Tiverton and back and a Tuesdays and Saturdays only midday train limited to the Dulverton-Tiverton section. Trains take from 60 to 80 minutes for the journey. Freight, usually handled by "57XX" pannier tanks, is covered by a daily working in each direction, Saturdays excepted, but under the British Railways system much of the smaller traffic for such outlying stations as those on this branch is now carried by road to and from the nearest railhead—in this case, Exeter.

In the event of a blockage on the main line between Norton Fitzwarren and Exeter, of course, the Exe Valley branch provides part of an alternative route, including the Taunton-Barnstaple branch as far as Morebath Junction; or, if the blockage is south of Tiverton Junction, the branch thence to Tiverton. It is laid down, however, that if such emergency working should be necessary, some traffic should be sent over the Southern from Exeter to Basingstoke and Reading, to avoid impossible overloading of the Barnstaple and Exe Valley branches. This course was followed early in the last war, when a freight train was derailed on Wellington bank and traffic was divided between the Southern and Exe Valley routes. The W.R. route colour of the Exe Valley branch is "yellow" and normally its tracks are barred to all engines but tanks in this category. In an emergency, however, engines of the "blue" group (i.e., up to the size of a "Manor" 4-6-0) can be specially authorised between Morebath Junction and Stoke Canon; in this group, however, the 2-8-0s are specifically prohibited from the branch. In March, 1953, a Southern "West Country" Pacific was given a trial run between Exeter and Barnstaple over the Exe Valley branch with a view, I imagine, to opening up another emergency route.

● The Wivenhoe-Brightlingsea branch was reopened on December 7 last, writes Mr. D. E. Phelan.

A PACIFIC AT PERRY BARR—Diverted from the Trent Valley main line because of Sunday engineering work, Pacific No. 46204 *Princess Louise* takes to the Birmingham-Walsall branch with the 10.10 a.m. Liverpool-Euston express (5/7/53). [*W. A. Camwell*

Spotting the Spotters



by PATRICK LEONARD

IT was a hot summer Saturday. The train was crowded, our progress was leisurely, and as Peter and I gazed disconsolately out of the window the scenery and the engines were such as we had seen hundreds of times before. It was too hot to read and too crowded to stroll in the corridor.

" That's the fifth time we've been photographed since leaving Waterloo," said Peter suddenly, pointing to a fat youth who had just tried to arrest our 50-mile-an-hour progress with the shutter of a box Brownie. " And it must be the five thousandth time we've had our number taken," said I, pointing to a group of some 50 boys of all ages who were busily writing in their little ABCs, while balancing on a very spiky sort of fence designed, I imagine, to stop their doing just that.

" Look," said Peter, " there's one with a beard and a pair of field glasses." " And there's even a girl doing it," I exclaimed, " that really must count five marks." " Five marks—five marks for what? " " I don't quite know," I replied, " but we must work it out—we'll call it Spotting the Spotters! We'll claim so many marks for special enterprise that we see and deduct marks for those who are trespassing or treading on live rails, and so on."

That started it, and now, even when we travel alone, Peter and I are never bored, for there are always spotters, young and old, and our points system is working well.

Girl spotters count five marks, binoculars in use score three. Trespassing on non-electrified lines counts five away, and on electrified lines ten away. Those who try to take engine number *and* tender number are counted two, while two small boys seated on top of a wall covered with broken glass we thought worthy of seven marks each, although, as our friend Don pointed out, they were probably the children of fakirs and so felt no pain; they were therefore worthy of no extra marks.

Of course, there are ways other than physical discomfort by which keenness can be shown. For example, many of the younger addicts show their enthusiasm by means of badges, and to spot such a spotter gives one an extra mark for every badge worn. Keen eyesight is essential if you are to claim your just quota of points, for some are loaded with more badges on their chests than a G.I. has medals.

Then there are the much more senior types who belong to clubs having their own neckties, which seem to resemble the colours of the Great Western Region. A certain superiority worthy of five points attaches to these, for their wearers usually insist upon boiler, works, *and* tender numbers and must see at *least* the chimney *and* the dome to count a " cop." The penalties for spotting unspotterlike behaviour in such senior persons must be correspondingly large. So when, recently, I saw two elderly tie-wearers spotting bus numbers and even excitedly jumping up and down when a Midland Red " cop " appeared, I disgustedly scored " ten away."

A few days later, at Eastleigh, I scored a proper " cop." Leaning out of a carriage window with his girl was an enterprising fellow who was getting the best of both worlds. One arm encircled his lady, the other supported the binoculars with which he took in all the numbers on the shed. And, as if this were not enough, he managed to entertain his love by biting her ear, and, when the angle of approach was suitable, to implant a kiss on her not unattractive face. I promptly claimed ten points.

I scored another success over Peter when recently he was at King's Cross. The usual crowd of spotters were there—nothing out of the ordinary—and we scored one point for each of them. Then an engine could be discovered emerging tender first from the tunnel. The boy nearest to Peter let out a whoop. " A streak," he cried, and Peter said " smart lad " and claimed three points. But his triumph was short-lived—for not one bit of streamline casing covered the handsome contours of the " A3,"

which our young spotter had announced as an "A4," and Peter was reluctantly persuaded that a score of three away was more appropriate to the occasion.

The next day, however, I met my Waterloo—and my score has never recovered from the blow it then received at the north end of York Station. Spotting had been proceeding fairly well all afternoon, and considering it was during the school holidays there had been remarkably few fights and scrimmages. True, a violent argument had arisen over the identity of a chimney top seen a mile away on the goods line. One chap, in a bright red cap, identified it as No. 200000 *Bevan*, and acclaimed it loudly as a "cop." A boy in a blue cap, however, was equally certain that the smoke emanated from No. 300000 *Churchill* and that it was *his* "cop." There was no Court of Appeal, and obviously the only way to decide the identity of the chimney was a trial of strength. This proceeded according to plan, a convenient luggage barrow breaking the fall of red-cap when blue-cap ultimately conquered his foe and simultaneously "copped" a "J27" which waddled noisily across the main line.

While all this was going on, two rather serious blokes—prefects, I suppose—had been very busily engaged making notes in their immaculate ABCs. I was intrigued, especially as I noted that one of the ABCs was that appertaining to the Southern Region. I edged nearer, and then cursed the luck that had made me do so, for folded neatly within the ABC so that it fitted exactly was a football pools coupon, and the concentration was explained. I was defeated; nothing could erase such foul deception and I promptly counted five hundred away. This made me a points-bankrupt Spotter-spotter, and I could no longer compete. With a lump in my throat I hurriedly left the station, and went back to London by bus.

"C. J. Speaking . . ."

A PERSONAL COMMENTARY BY CECIL J. ALLEN

WHEN in the last issue I gave a brief review of the British Railways Bulletin No. 9, on the working of the Southern Region 1-Co-Co-1 main line diesel No. 10202, I mentioned a rather startling test run that had been made, when the 3 p.m. from Waterloo was worked over the 48.9 miles from Yeovil Junction to Exeter in 44 min. start to stop, and expressed the desire that we might know something of the detailed times and speeds that were achieved. Fortunately there was a recorder on the train who has made available the figures of what must have been an enlivening experience.

From Yeovil Junction the load was eight bogies of 265 tons tare and 282 tons gross; the train got away 8¼ min. late, due to delays earlier in the run, and it was decided to set about recovery of the arrears. The start from Yeovil Junction is up at 1 in 200, then 150, and then 140, but the speed mounted steadily up this to 50 m.p.h., and milepost 126¼ summit, 3.7 miles, was cleared in 6 min. 12 sec. On the easy grades down past Hardington, 77 m.p.h. was touched, and the 2¾ miles at 1 in 180 up past Crewkerne were surmounted at 53 m.p.h. At 3½ miles beyond Hewish Summit, 85 m.p.h. was attained, and No. 10202 was now eased to prevent excessive speeds; to the bottom of the long descent past Axminster the rate was kept steadily at 83 to 85½ m.p.h., the 13 miles between posts 133¼ (10.6 miles from the start in exactly 12 min.) and 146¾ taking 9 min. 18 sec.

Now came the attack on Seaton bank. It was begun at 84½ m.p.h.; by Seaton Junction, up 1½ miles at 1 in 100, the rate had dropped to 74; the 4½ miles at 1 in 80 brought it down to 41 at the entry to the tunnel and there was a recovery to 45 on the 1 in 132 through the tunnel. The entire bank, from post 146¼ to post 153½, 7.3 miles long, thus was rushed in 7 min. 42 sec. Axminster, 21.9 miles, had been passed in 20 min. 6 sec., and to milepost 153½, close to the summit, the time for the 30.9 miles was exactly 29 min.

In a swift swoop down past Honiton speed was allowed to rise to 89 m.p.h.; the lowest rate after Sidmouth Junction was 70; and there was a final 86½ at Broad Clyst. This gave times of 33 min. 42 sec. to Sidmouth Junction, 36.7 miles; and 42 min. 12 sec. to Exmouth Junction, 47.8 miles; a smart entry to Exeter Central completed the run of 48.9 miles, allowed 56 min. on this train, in 44 min. 18 sec. As a "Merchant Navy" Pacific, No. 35013 *Blue Funnel*, has made a run over the same length with a 345-ton test train in 44 min. 14 sec. in the reverse direction, which is distinctly the harder of the two, there is little doubt that an "MN" could have duplicated the diesel's performance, but the latter was a fine effort, for all that.

* * *

In my November article I commented on the fact that the 6.20 p.m. two-hour

express from Birmingham to Euston, which, apart from the intermission of the First World War, had run without interruption from 1910 to 1939, had never been restored since the Second World War, and that as a result the businessman wanting a fast journey from Birmingham to London was compelled to leave not later than the "Inter-City," at 5 p.m. from Snow Hill. Actually, I find that this train did reappear for a short time in the 1946-1947 winter, but its usefulness was limited by the omission of the Watford stop, and after withdrawal at the time of the coal crisis, it was not reinstated.

And now I have been intrigued to notice how this unfavourable comparison with the facilities afforded from other cities to London finds publicity in a poster issued by none other than British Railways themselves. Headed "There and Back in a Day," this poster shows the total time a businessman can have in a number of important industrial centres if he uses the best early morning service down from London, and the corresponding evening service back.

This is shown as 7 hours in the case of Leeds, 5¾ hours in that of Darlington, and 4¼ hours at Newcastle, by the 7.50 a.m. from Kings Cross and the 10.8 p.m. arrival back; 6 hours at Manchester and 5¾ hours at Liverpool (down by the 8 a.m. from Euston and back by the 5.50 p.m. "Comet" and 5.25 p.m. "Red Rose" respectively) 6 hours at Norwich, by the "Norfolkman" both ways; and 6 hours at Bristol, by the 9.5 a.m. "Bristolian" down and the 5.25 p.m. "Merchant Venturer" up. Yet Birmingham, nearer to London than any of these cities (less than half the distance to Darlington), and far from the least important, is credited with 5½ hours only.

Actually this figure, based presumably on the use of the 8.50 a.m. from Euston and the 4.30 p.m. back, depreciates the Birmingham position unnecessarily, as the "Inter-City" (9 a.m. from Paddington and 5 p.m. back) allows a full 6 hours there. But if a 6.30 p.m. up were running from New Street, this, coupled with the 8.50 a.m. down, would allow 7 hours 40 min. in Birmingham, with a 2-hour run in each direction to and from London. It is not merely in the interest of a whole day in the West Midlands, of course, that such a facility is called for; it would benefit equally the man who might want a morning in London, and could then use the 12.50 p.m. from Euston, getting his lunch *en route*, have 3¾ hours in Birmingham, and return by the 6.30 p.m. It is to be hoped that the authorities will consider seriously the reinstatement of this most useful service.

The foregoing paragraphs arouse some curious reflections. It is that in some directions from London no one would ever appear to wish to make an early start. To the West of England, for example, it is never possible, except in the height of summer, to leave by a fast train for Exeter or beyond earlier than the 10.30 a.m. "Cornish Riviera Express" from Paddington or the 11 a.m. "Atlantic Coast Express" from Waterloo. Equally, though one can start for points as far north as Newcastle or Preston at 7.50 a.m. from Kings Cross or 8 a.m. from Euston, the earliest possible start for Scotland—apart from the "small hours" at 12.55 or 3.50 a.m.!—during ten months of the year is at 10 a.m., by the "Flying Scotsman" or the "Royal Scot." Neither may one start south from Edinburgh or Glasgow at anything earlier than 10 a.m. As a result, after the southbound night trains have passed, no fast train from the north enters either Newcastle or Carlisle before midday, a most odd fact!

THE DEELEY-PAGET FEUD

[*Concluded from page* 34]

Britain—"there was simply no doubt about it . . . with its superb main lines, its superior stations, its elegant trains, and that pioneering habit which so embarrassed its neighbours"—is obvious, and he has done it magnificent justice. Although there are some valuable appendices listing M.R. engines, *The Midland Railway* is not, as Mr. Ellis points out, a plain history of the railway's locomotives, but an absorbing account of a railway system, its engines, coaching stock, stations, services—even its steamers. Thirty-three pages of black-and-white and two coloured illustrations complete this important and valuable addition to the railway bookshelf. **E.D.**

OUTSTANDING U.S. LOCOMOTIVES

[*Concluded from opposite page*]

5,500 tons on the level and were employed on the hump yard at Gibson, Indiana, where the grade is 1 in 46. Amongst their duties they had to keep strings of cars on the move during the Arctic weather experienced in the Mid-West winter, to prevent the axlebox lubricants freezing solid. Much of their work was done at a very low speed of about 2 m.p.h. and as their monthly mileages approached 2,000 they must have achieved some very arduous work in their day. Unfortunately, it is no longer possible to see such engines at work as diesels have now replaced them, but there is at least one three-cylinder 0-8-0 to be found in an American museum.

THE INDIANA HARBOR BELT THREE-CYLINDER 0-8-0s

OUTSTANDING U.S. LOCOMOTIVES—No. 8

by

H. M. Le Fleming

M.A., A.M.I.Mech.E., M.I. Loco. E.

ONE of the features of the American railway scene not found elsewhere is the existence of many small systems called Belt, Union, Terminal or Connecting railroads. They are found in many large centres served by a number of the larger companies and link these main routes via their own track, which also includes a marshalling yard; they take over incoming freight trains, split them up, reform them and deliver the outgoing formation to the railroad concerned.

The locomotive stock of such systems consisted almost entirely of heavy shunting engines or switchers, the great majority being 0-8-0 tender engines. In the search for greater power three courses were open to them. First, they could use ten-coupled engines, but this was usually prohibited by the frequent curves, points and crossings to be negotiated. In fact, the 0-10-0 is not a suitable type for such tortuous routes with its long rigid wheelbase and it has always been a somewhat rare type in the U.S.A., where its usefulness is strictly limited. Some railroads have used instead old 2-8-2s with the front pony truck removed, thus introducing a new wheel arrangement—the 0-8-2 tender. Secondly, they could consider the huge 0-8-8-0 articulated switchers as used on the Pennsylvania, New York Central, Erie and other big railroads. These, however, would require heavy shop equipment, larger turntables and other expensive items beyond the economic resources of small concerns. The third alternative, and the subject of this article, was the three-cylinder 0-8-0 of maximum dimensions with a bogie booster on the tender. With this it was possible to obtain a tractive effort of 90,000 lb.—the equivalent of an 0-6-6-0 or 2-10-4—without incurring any additional expenditure for equipment.

The engine illustrated is Indiana Harbor Belt No. 102, one of three built by the American Locomotive Co. in 1927. The cylinders were of cast steel bushed with cast iron and the inside drove the second axle with the stroke reduced to 28 in. to prevent the big end fouling the track. Being a three-cylinder engine, its factor of adhesion could be safely reduced to 3.88. The piston valves were 12 in. in diameter with a travel of $6\frac{3}{4}$ in., operated by Baker valve gear with the Gresley arrangement in front of the cylinders. The engine wheelbase was only 16 ft. 4 in. and the overall dimensions very moderate by American standards; maximum height at the chimney was a shade over 15 ft. and the greatest width 10 ft. $2\frac{1}{2}$ in.

The boiler barrel had a maximum diameter of 7 ft. 8 in. and a length of 16 ft. between tube plates. Arch tubes supported the brick arch and the grate was just over 8 ft. 6 in. square with an area of 72.5 sq. ft. This may seem large for hand firing, for which two fire doors were provided, but full steam output was only required intermittently, and then for short periods, whilst the speed was very low. The leading bogie of the tender had coupled wheels driven by a booster which provided 13,800 lb. of additional tractive effort when required. Tender capacity allowed for 12,000 gallons of water and $13\frac{1}{2}$ tons of soft coal.

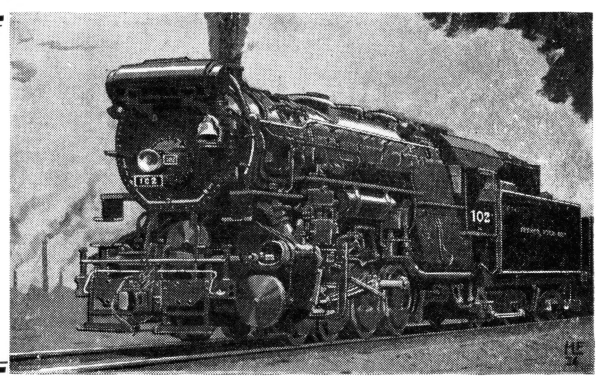
These engines worked trains of up to

[*Concluded at foot of facing page*]

DIMENSIONS

Weights: *	
Engine	131 tons
Tender	99 tons
Cylinders:	
Outside	$23\frac{1}{2}$ in. x 32 in.
Inside	$23\frac{1}{2}$ in. x 28 in.
Dr. wheel diam.	4 ft. 9 in.
Boiler pressure	200 lb.
Grate area	72.5 sq. ft.
Heating Surfaces:	
Evaporative	4,017 sq. ft.
Superheater	953 sq. ft.
Total	4,970 sq. ft.
Tractive Effort:	
Without booster	75,700 lb.
With booster	89,500 lb.

* *Tons of 2,240 lb.*



● HAMILTON ELLIS' NEW BOOK REVEALS AN UNHAPPY PERIOD OF DERBY'S HISTORY

THE DEELEY-PAGET FEUD

ONE notable locomotive landmark of 1953 was the withdrawal of the last of the five original Johnson compound 4-4-0s, built between 1901 and 1903 as Nos. 2631-5 of the Midland Railway. When their appearance had crowned his term of office as locomotive superintendent of the Midland Railway, Samuel Johnson retired, and there followed a troubled period in Midland locomotive history on which an important book* just published throws new and valuable light.

Towards the end of his superintendency, Johnson had been understudied by Richard M. Deeley, who, as Derby works manager with responsibility for boilers and electrical equipment, had provided the large boilers for the last Johnson engines. Deeley's assistant, however, had an advantage that counter-balanced his subservience to the heir-apparent to Johnson's chair; for the assistant was Cecil W. Paget, and his father, Sir Ernest Paget, Bart., was no less than chairman of the Midland company. Moreover, Paget junior had a special hankering for the job, since he cherished some highly individual ideas on locomotive design which he proposed to put into effect at the earliest opportunity. There was also a third contender—Henry Fowler, who had been chief of the Horwich testing department on the L. & Y.R. and had joined the Midland in a similar position in 1900.

In the event, it was Deeley who was appointed, while Paget became works manager with Fowler as his assistant. Although, to all outward appearances, the processes of locomotive design and construction proceeded on smooth and orthodox lines, during the first year or so of Deeley's term of office, there was little cordiality and good fellowship at Derby. Deeley and Paget, writes Mr. Hamilton Ellis in his new book, " were an ill-assorted pair, though both excellent men." A completely unsympathetic ear was turned to Paget's novel ideas and, since he was determined to test them in practice, he had no recourse but to sink his own capital in having an engine incorporating them built at Derby to his private order.

The result was the controversial Paget 2-6-2. The outstanding unorthodoxy of this engine lay in its sleeve valves and boiler, which in some ways anticipated Mr. Bulleid's abortive " Leader " of later years. The revolutionary Paget engine had no fewer than eight cylinders, with trunk pistons, cast in two groups of four, one between each pair of adjacent coupled axles and each group of such width that outside frames were required. The centre axle was driven by four cylinders, two from each group, and the other two axles by two cylinders apiece. Mr. Hamilton Ellis writes:

> Above each group of cylinders was a circular steam-chest with two admission ports in a bronze sleeve, one for each pair of cylinders, left and right respectively. Admission was to each pair of cylinders simultaneously, the two trunk pistons moving away from one another as in Bodmer's balanced engines of long ago on the Brighton and South Eastern Railways; the eight cylinders were in fact equivalent to four double-acting cylinders. In each steam-chest was a continuously rotating cast-iron sleeve valve, admitting steam to one pair of cylinders or the other as its single port passed over the ports in the bronze sleeve. An extension of the side rods at the rear drove what looked like a transverse " dummy " axle. This had bevel gears driving an intermediate shaft, which was in turn geared to a longitudinally-rotating shaft which operated the sleeve valves on both cylinder groups. . . . Exhaust took place as in a uniflow engine, when the pistons overshot the exhaust ports in the cylinder walls. Reversing was by a differential gear of four bevel wheels in one of the shafts.

Paget evolved an ingenious method of dispensing with some 75 per cent. of the firebox stays and economising on copper. There were no water spaces; the wide grate was nothing more than a huge brick-lined furnace with two firedoors at one end and a steel tube plate at the other, thus confining the evaporative surface to the steel crown. Other points of the Paget engine were its imaginative consideration of the needs of those who would have to man and service it, particularly in the location of cab instruments and gauges, the provision of a good lookout and the fitting of ash-dumping devices in ashpan and smokebox.

It is a thousand pities that this machine was never given a fair trial. Paget's financial resources were exhausted before it was completed and when, in 1907, he was moved to the post of general superintendent of the Midland, the Company insisted that the project must be handed over to their tender and parsimonious care. To his disgust, Deeley had to complete the monster. It made a few test runs veiled in secrecy and unluckily punctuated by failures, resulting mainly from overheated cylinders and valve leakage, but, although given the number 2299 in Midland stock, it never entered regular service.

Meanwhile, Mr. Hamilton Ellis now reveals, Deeley, a man of ideas himself, was not to be outdone and had conceived a four-cylinder 2-4-4-2 compound tank,

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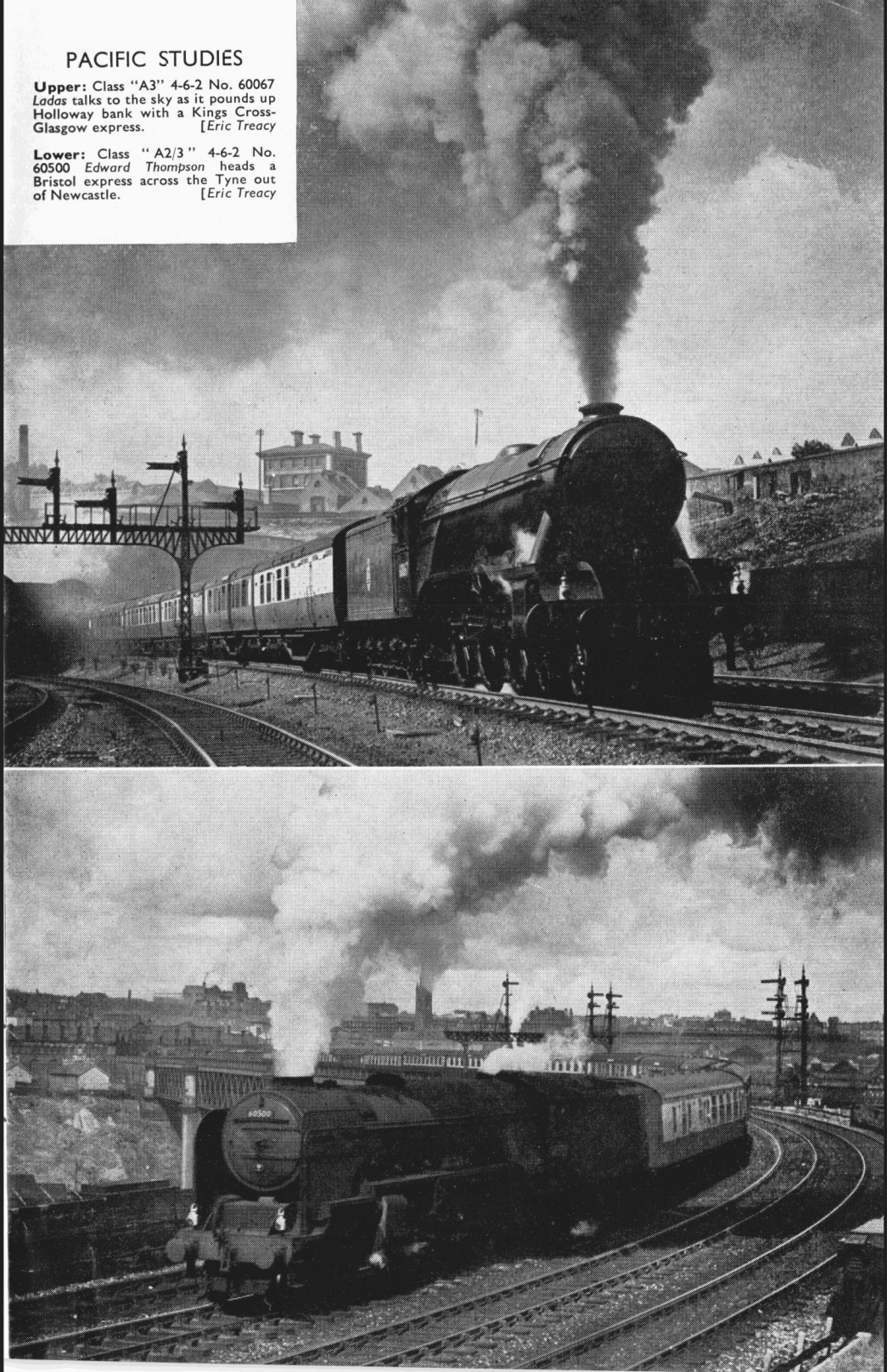
***THE MIDLAND RAILWAY.** By Hamilton Ellis. *Ian Allan.* 25s.

PACIFIC STUDIES

Upper: Class "A3" 4-6-2 No. 60067 *Ladas* talks to the sky as it pounds up Holloway bank with a Kings Cross-Glasgow express. [*Eric Treacy*

Lower: Class "A2/3" 4-6-2 No. 60500 *Edward Thompson* heads a Bristol express across the Tyne out of Newcastle. [*Eric Treacy*

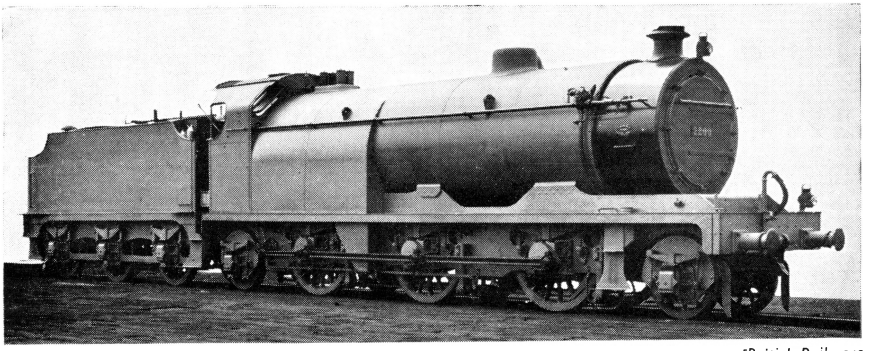


with two high pressure cylinders under the bunker (outside, like the low pressure ones in the conventional position beneath the smokebox). Mr. Hamilton Ellis provides us with a diagram of this interesting design, which shows that it was intended to have 5 ft. diameter driving wheels and thus, presumably, to have been intended for main line goods work. Unfortunately, before it came to a question of building it, the rumbling volcano of personal rivalry on the Midland erupted. Deeley stalked out of Derby in a rage one morning and never handled a locomotive diagram again, on the Midland or anywhere else.

So, in 1909, it was Fowler who, biding his time in the background, took over direction of the Midland's mechanical affairs. The unhappy Paget engine was shrouded in canvas and consigned to the recesses of Derby paint-shop, where it stood until advantage was taken of Paget's absence in France to scrap it in 1915.

Thus ended an unhappy stage of Midland affairs, from which, had two such opposed temperaments not been matched, developments of great moment to the future British locomotive engineering might have matured. Mr. Hamilton Ellis relates it in inimitable fashion, as he does the rest of Midland history, in this new book. His affection for a system which, he claims, from 1875 to 1923 was the best railway in

[Concluded on page 30]



[British Railways

PAGET'S PRODIGY—Cecil Paget's experimental 2-6-2 engine

. . . *and here is more* NEW READING FOR RAILFANS

LOCOMOTIVE & TRAIN WORKING IN THE LATTER PART OF THE 19th CENTURY. Vol. 5. By E. L. Ahrons. *Heffer.* **15s.**

Generally speaking, Ahrons seems to have taken a poor view of the Southern's constituents. There were the cheerless, gale-wracked and oil-spattered third class "boxes" of the South Eastern, with which he made merry for several paragraphs, and the funereal speed of most of its trains, while the London, Chatham and Dover vied closely with it in both respects. The Brighton seems to have sinned so grossly in most departments of train operating that one wonders how it managed to attract the following it now enjoys—it is in this chapter that Ahrons coined his celebrated epigram that "it is better to be a dead mackerel on the North-Western than a first-class passenger on the London, Brighton and South Coast." One's only regret is that Ahrons found so much else on which to play his wit that he overlooked the more outstanding futilities of locomotive naming on these systems; the L.C. & D.'s *Flirt* and the Brighton's *Penge* are quite the equal of today's *Albert Hall* or *Bachelor's Button* in unsuitability! The South Western emerges almost unscathed from Ahrons' analysis, but most model railway owners would appear to have been able to teach the old Somerset and Dorset the rudiments of safe and efficient operation. An account of the Metropolitan rounds off another fascinating volume in this series, which, like its predecessors, includes some interesting illustrations of locomotives—but still, unfortunately, no trains.

* * *

ABC OF BRITISH RAILWAYS LOCOMOTIVES, Pts. 1-4. *Ian Allan.* **2s. each 10s. combined.**

All *ABC* users will welcome an increase in the illustration page content of each part, with the result that the pictures are larger than for a year or two past. Otherwise the new editions follow the usual format.

* * *

TRAFFIC SURVEY (S.R., WESTERN SECTION). *Obtainable from B. Knowlman, c/o Index Publishers, 69 Victoria Street, London, S.W.1.* **2s. 6d.**

This is a most commendable piece of individual enterprise deserving of the support of any Southern enthusiast. In 12 closely-packed foolscap sheets it records the running of every main-line passenger train of the S.R.'s Western Section on August 22 last as noted by voluntary (and unofficial) observers throughout the length and breadth of the Region. To readers interested, as every railfan should be, in train operating, it offers a most valuable insight into the problems of fitting a heavy Saturday holiday traffic into the timetable and in providing the necessary motive power. Some useful information on Southern duty numbers is included.

* * *

NEW ZEALAND RAILWAY ENGINES. *The New Zealand Railway & Locomotive Society (obtainable through Ian Allan Ltd.).* **5s.**

A 32-page brochure describing and illustrating representative motive power of New Zealand past and present. Leading dimensions of each type are given, but not running numbers. **E.D.**

LETTERS TO THE EDITOR

STANIER 2-8-0s FROM THE MIDDLE EAST

To the Editor of "Trains Illustrated."

SIR,—Further to your contributor's letter in the November issue, p. 436, the new W.D. numbers allocated to the five engines concerned, in the order which your reader gives them, are: 512, 508, 511, 501 and 500. The first two to arrive in this country at Birkenhead were 500 (ex-70307) and 501 (ex-70373, which appears to have been canibalised from 70320), in August, 1952; No. 500 carried on its cab side the Arabic numerals for 70307. I saw both these locomotives at 169 Railway Workshops, Canal Zone, in late 1948, at which time they carried Iranian State Railway numbers. I understand that No. 501 (ex-70320) at a later date carried the name *Lt. W. O. Lennox, V.C.* and evidence of this could be seen when at Derby on October 4th, 1952; although no nameplate was carried, it could easily be seen where it had been. The reason for No. 500's paintwork now being in such excellent condition is that it has been "shopped." I noted it in the paint shops at Derby in May, 1953, with its new W.D. No. painted on, although under the paint its old W.D. No. 70307, its Iran No. 41-109 and the letter "AWZ" (presumed to be its station in Iran) could clearly be seen.

As regards item No. 3 of your reader's letter, "unidentified chassis only," I saw this engine complete on May 19th, 1953, and identified it as W.D. No. 70575, with its new W.D. No. 511 chalked on it; also visible was its Iranian State Railways No. 41-152. This engine is ex-L.M.S. No. 8021, built at Crewe in 1937. It was at one time reported that these locomotives were to be converted to oil burning. Could any reader throw any light on this or what their future is to be?

Birmingham. (Major) W. BURSNALL.

BATTLE OF THE VALLEYS

To the Editor of "Trains Illustrated."

SIR,—Your editorial comment in the November issue upon the road-rail competition in South Wales appears to conclude that because the bus companies were able to introduce cheap day returns on these routes, their recently granted fares increase was unwarranted. May I suggest that this is scarcely a just criticism?

The bus companies, like the railways, maintain a large number of unprofitable routes, and—one might remark—seem less anxious than their railway friends to withdraw services without first doing all they can to operate them at minimum cost. The fact remains that these unremunerative services must be subsidised by the more heavily-trafficked routes (just as branch lines are subsidised by main lines), and if the South Welsh companies lost a considerable number of passengers to the trains on town routes, this would lessen their funds for maintaining the country routes. Withdrawal of those routes, or a further fares increase, would be hastened.

One must not forget, too, that whereas both road and rail fare increases are subject to approval by "Authority" in some shape or form, no such equality applies to their services. The railways can introduce overnight a completely new timetable, whereas the bus companies must state their case in a Licensing Court where all and sundry (railways included) may object to their proposals.

London, S.W.1. B. KNOWLMAN.

THE NETHERLANDS RAILWAY

To the Editor of "Trains Illustrated."

SIR,—I was extremely interested in Mr. P. W. B. Semmens' article on the Netherlands Railways in the October issue, as I spent a month in Holland in 1950, and there are one or two points I would take up. The clasp brakes referred to in the third paragraph on page 374 do not bear on the wheel disc as is inferred, but the discs are fitted to the axles specially for braking, the shoes being Ferrodo-lined. Incidentally, these brake discs were fairly troublesome and a return to the normal type of brake has now been made, though these are sometimes supplemented by magnetic track brakes, especially on the diesel-electric multiple-unit trains. In the fifth paragraph on page 374 the place referred to as Shiedam should be Schiedam.

On page 376 reference is made to the 0-4-0 and 0-6-0 diesel-electric shunters. The latter, the "501" Class, has been adopted as the standard shunter. Actually only Nos. 501 to 510 were built at Derby and were purchased for the W.D. Of the rest, Nos. 511 to 520 were built complete in their Preston Works by the English Electric Company, which is now delivering a repeat order of 90 locomotives. On page 379 there is what I assume to be a typographical error. The place referred to as *W*eerlen is *H*eerlen, a junction with the German railways, and an important centre for handling the fairly extensive Limburg coal traffic.

Mr. Semmens does not mention the 20 American Whitcomb Bo-Bo diesel electric locomotives of 570 h.p. which were purchased from the U.S. Army, and are now used on the oil trains from the oilfields at Nieuw Amsterdam, in the north-east near the German border. The original Buda engines have been replaced by new engines of Thomassen-Fricks manufacture and they are now quite useful locomotives with a fairly wide route availability, having an axle-load of 15 tons.

Kingston-on-Thames. A. S. H. TAYLER.

THE WELWYN-DUNSTABLE BRANCH

To the Editor of "Trains Illustrated."

SIR,—I was surprised that your otherwise excellent article on the Welwyn-Dunstable branch in the November issue did not mention the latest developments, which have been in progress as a more or less spare-time job for the departments concerned during the past 18 months. These are designed considerably to increase the capacity of the line from Hatfield to Luton, a section of which more use could have been made at various times than has in fact been possible. The major obstacle has been the section between Hatfield and the passing loop at Ayot, which includes the 1 in 56·162 up from Welwyn Garden City to the latter place.

The improvements fall into three categories:—

(1) The installation of a new goods loop at Welwyn Garden City, about 900 ft. long. The track work for this is now complete, the footbridge having been lengthened, and the signalbox extended.

(2) Complete resignalling between Hatfield and Ayot, involving new situations for existing signals and extra stop signals. The posts are all in position and wiring up is now proceeding.

(3) Alteration of single-line working methods throughout from Hatfield to Luton. Previously train staff have been employed over three sections on weekdays: Hatfield-Ayot, Ayot-Harpenden and Harpenden-Luton East. On Sundays, Harpenden box is "out" and Ayot-Luton East is worked as one section. In future, electric token working is to be used between Ayot and Luton East, divided as previously. This has just been introduced, from Harpenden onwards; but, until it is installed from there to Ayot, the curious situation exists where the electric token is used on weekdays and the train staff on Sundays, due to the closure of Harpenden box, as mentioned above.

From Hatfield to Ayot the line is being track-circuited throughout, and no tokens will be necessary. The circuits will be of the sweeping type and the rails will not normally be live. They will be operated by plungers from the various signalboxes, and if the line is not obstructed, relays will release the signal locks. At the same time, the signalman at the other end of the section concerned will be prevented from carrying out the same procedure, as his signal lock cannot be released until the first movement has been cancelled, thus preventing trains entering the single line from both ends simultaneously.

About half a mile from Welwyn Garden City station is the entrance to a private siding. At present the points there are released by inserting the train staff into the ground frame, in the normal way.

This arrangement is to be replaced by a relay-operated lock, which will automatically release after a two-minute occupation of the neighbouring track. As there are no stop signals within a quarter of a mile of this siding, such a lengthy occupation would only normally occur where a train wishing to shunt was halted there.

Although very little outdoor work now remains to be done on this section, the new lever frame has not yet been added in Welwyn Garden City signalbox, and, until this is done, naturally, the new loop and signalling cannot be brought into operation. However, the normal day-to-day working of the branch does not overtax its capacity, and there is at present no urgency to complete the work. When it is finished, though, there should be adequate capacity available to meet any emergency, and the work will be a good example of what modern signalling methods can achieve at a comparatively small cost, compared with that of doubling the track for a considerable distance, which would have been the only alternative to produce the same result.

Welwyn Garden City. (Capt.) A. L. LAMBERT.

To the Editor of "Trains Illustrated."

SIR,—I very much appreciated Mr. Summerson's article in your November issue on the Welwyn-Dunstable branch.

There are, however, one or two additional points I would like to make. Mr. Summerson mentions the recent influx of "N7s" to the line and states that the "N2s" are now used for freight work. The reason for this was the imposition of a weight restriction between Luton and Dunstable which precluded the "N2s" from running over this section. Therefore "N7s" are used on all through passenger trains and any through goods workings, but the "N2s" are used between Welwyn and Luton for freights which terminate at Luton. Incidentally, "N2s" have worked to Dunstable since the ban, but these visits are rare. Since the section from Dunstable to Harpenden East was handed over to the L.M.R., there have been infrequent workings of L.M. locomotives, mostly on inspection saloons. I believe that 4-4-0 No. 40672 of Watford has been seen twice.

Until fairly recently, the passenger trains consisted of two twin-sets, but during last year these were cut to one unit. Of course, rush-hour trains are longer. On October 10th last I noted a "J6" 0-6-0 leaving Luton (Bute Street) for Dunstable on a freight, a most unusual occurrence.

Harpenden, Herts. PATRICK WOOD.

To the Editor of "Trains Illustrated."

SIR,—In view of your article on the Welwyn-Dunstable branch you may perhaps be interested in my photo (*below*) showing the very rare (if not unheard-of) sight of a 4-6-0 working a through train over the branch. The train was an S.L.S. special, and the Bletchley engine had worked through from Kensington, via Willesden (H.L.), Gospel Oak curve, and the Harringay loop, thence over the G.N. main line to Welwyn; the special returned from Dunstable via Leighton Buzzard, Bletchley avoiding line, Calvert, Aylesbury, Princes Risborough, Northolt and East Acton, to Kensington. With its W.R. stock, including a cafeteria car, the standard 4-6-0 attracted considerable attention.

Eastbourne. S. C. NASH.

THE LAUGH'S ON US

To the Editor of "Trains Illustrated."

SIR,—I regret to inform you that "A1" No. 60150 was built at Darlington, in spite of your remarks on page 423 of the current *Trains Illustrated*. Doncaster is not the only place that can build Pacifics!

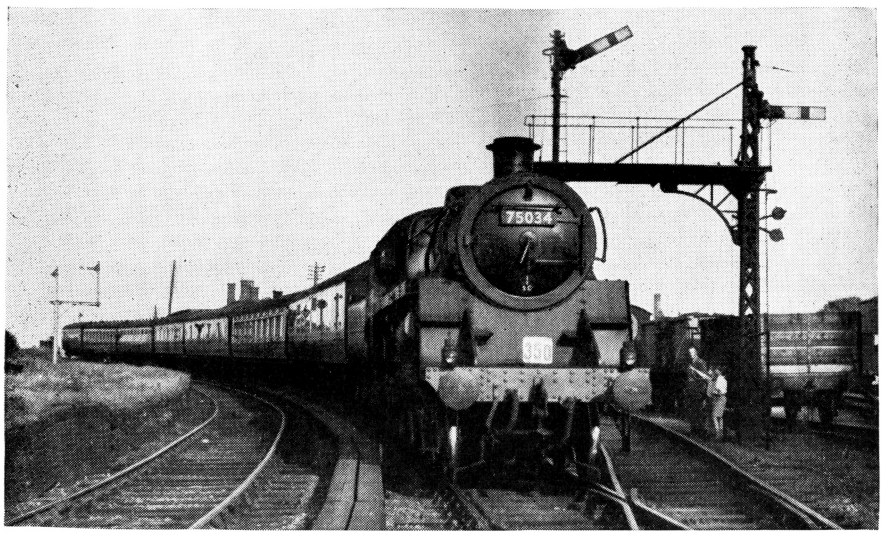
Scarborough. K. HOOLE.

ROAD VANS

To the Editor of "Trains Illustrated."

SIR,—I am afraid Mr. Everard in your November issue has got a little off the rails about Road Vans. After 50 years in Scotland I have yet to hear of a carrier's cart being called a "bogie," but maybe they did things differently in Fife, which has the temerity to call itself a Kingdom. If Mr. Everard has said they were called "larries" he would have been right. However, to the Caledonian point.

From 1908 onward a large number of bogie wagons of 30 and 35-ton capacity were built by the C.R. and quite a number were fitted with the Westinghouse brake. This culminated in the 50-ton bogie wagon No. 72000, which, like *The Great Bear*, remained the only one of its type. The bogie wagons were often used for the "Road Van" traffic, hence the term bogie applied to the train in question.



STRANGER AT DUNSTABLE NORTH—Class "4MT" 4-6-0 No. 75034 with the S.L.S. excursion, formed of W.R. stock, mentioned in a letter on this page (12/9/53). [*S. C. Nash*

It should be borne in mind that these names were applied prior to 1914 and the original cause of the name has long since gone. The bogie wagons latterly were used mostly for the conveyance of locomotive coal and were broken up by the L.M.S. people.

Glasgow, N.W. A. G. DUNBAR.

THANK *YOU*, DRIVER HAILSTONE

To the Editor of "Trains Illustrated."

SIR,—I have received a large number of letters from railway enthusiasts and other wellwishers, thanking me for my part in the running of the "Plant Centenarian." It is a great pleasure for me to know that so many people are interested in the running of railways and particularly the locomotive side with which I am connected. Much as I would like to, it would be impossible for me to reply to each individual letter that I have received. Perhaps you would be good enough to thank those of your readers who have so kindly written to me expressing their good wishes and thanks.

c/o Kings Cross, E. "TED" HAILSTONE.
Motive Power Depot.

A WESTERN REGION CURFEW

To the Editor of "Trains Illustrated."

SIR,—The winter timetables show many welcome improvements but there are continued omissions which must rob the railways of passenger traffic because people who wish to travel late are compelled to make other arrangements. I will quote two important routes on which Western Region imposes an incredibly early curfew. Except on Sunday nights, the last train from Paddington to Worcester, Droitwich, Great Malvern, etc., leaves at 6.45 p.m., thus making it impossible for people to visit a London theatre and being a great source of worry to travellers from the Continent. I know of people who make regular use of their cars when they go to London from Worcestershire because the Western Region will not get them home. It is equally fantastic that the last train from South Wales to Birmingham leaves at 5.5 p.m., a deliberate rejection of traffic if ever there was one. But the Western Region has never been "Starlight"-minded.

Leamington Spa. GILBERT DALTON.

SOCIETY COLUMN

THE RAILWAY CORRESPONDENCE AND TRAVEL SOCIETY

THE objects of this Society, which was founded in 1928, are to further a general interest in railways and to afford its members every opportunity for studying various aspects of railway history and operation. To this end, facilities offered to members include visits to motive power depots and works—as well as to other railway installations—such as marshalling yards, control offices and signal boxes, and, in recent years, the Society has been in the forefront in the development of the very interesting programme of rail tours which are offered each year. To turn to indoor activities, a very fine library is at the disposal of members on club nights, which are held throughout the year at the Railway Clearing House. There is a photographic section, and during the winter months lectures are given at regular intervals by well-known personalities in the railway sphere. The Society is affiliated to a number of similar societies throughout the world and members travelling abroad obtain many useful facilities as a result. Each month the Society's magazine *Railway Observer* is published and issued to members, and this offers an unrivalled news service on all railway matters as well as keeping members informed of all Society fixtures.

For 1954 another full and varied programme has been prepared, and it is hoped to record the progress of the Society month by month through these columns. Applications for membership can be considered from those over 16 years of age.

Further particulars of the Society and its prospectus can be obtained by writing to the Hon. Secretary, Mr. E. J. Nicholls, 21 Sheringham Road, Anerley, London, S.E.20, enclosing 4d. in stamps.

THE STEPHENSON LOCOMOTIVE SOCIETY

THE Stephenson Locomotive Society was founded in 1909. The pioneer body of its kind, it has an extensive organisation in the British Isles and caters for all forms of locomotive enthusiasm, professional or amateur, welcoming members aged 16 or over. At its Kensington, London, headquarters, on October 20th last, Mr. Norman Harvey lectured with epidiascope illustrations on "Recent Locomotive Performance" which he had recorded, including footplate experience on "A1" Pacifics, when, with most economical steaming and substantial loads, fast timings between Darlington and York were improved upon. Logs recorded by Mr. R. A. H. Weight also were briefly reported. Mr. Harvey mentioned the high mileages up to 11,000 per month or four weeks achieved by "A4" and "Duchess" 4-6-2s and consistent totals of 7,000 to 8,000 miles per four-weekly periods often covered by other Pacific or principal 4-6-0 types on the Northern main lines from London. He stressed the high standard of performance sustained by the rebuilt "Scots" on arduous runs such as the 165 minute timing for 158 miles, worked with 15 corridors on the Euston-Crewe section of through Liverpool, Manchester or Blackpool journeys. Rebuilt "Patriots" are frequently provided as "7P" power and are capable under favourable conditions of equally good work. Other items of interest included accounts of a Stanier Mogul attaining 65 m.p.h. along the North Wales coast; the recovery of 7 minutes by a Nottingham-Bournemouth express oddly hauled on the S. & D. line by a 2-8-0 piloted by Class "2" 4-4-0; grand performances by "Schools" on heavy Midlands trains from Polegate to Brighton; 70 m.p.h. by a standard 2-6-4 tank during a chequered run from Croydon to Eastbourne; and S.R. "K" 2-6-0s and "E5" tanks keeping time on through Midlands portions in Sussex.

THE RAILWAY ENTHUSIASTS' CLUB

THE Railway Enthusiasts' Club now has its new clubroom open in Farnborough. This is situated in St. Alban's Institute (rear entrance), Lynchford Road (opposite the junction with Alexandra Road), and is centrally situated. It can be easily reached by direct bus services from Farnborough, North Camp, Ash Vale and Aldershot stations. Non-members are always welcome and the room, which is comfortably furnished and includes a reference and lending library, a collection of over 1,000 railway photographs, and a collection of railway documents and timetables, is open on Fridays (8-10 p.m.), Saturdays (9.30 a.m.-1 p.m. and 2-10.30 p.m.), and Sundays (10 a.m.-10 p.m.).

A programme of talks has been arranged, and these will include Mr. J. S. Gilks speaking on the "Reading and Reigate Railway" on Sunday, January 31st, at 3.30 p.m. During this weekend there will be a small display, the subject of which will be "The Railways of Surrey." A large number of outdoor visits are still being held, on many of which non-members are welcome. A "Hampshire Rail Tour" is planned for Saturday, May 1st, to include a number of lines closed to passenger traffic, with specially selected motive power. A unique "Poole Harbour Tour" is to be held on Thursday, April 22nd, details of which will be published as soon as possible. If you are unable to call at the clubroom any weekend, but would like details of the Club, you are invited to write to the Hon. Secretary, H. Davies, "Lynmouth," Sycamore Road, Farnborough, Hants. (Tel.: Farnborough, Hants, 45).

THE RAILWAY CLUB

AT the next meeting of the Railway Club, at 7 p.m. on January 8th, 1954, at 57 Fetter Lane, London, E.C.4, Mr. D. S. M. Barrie, M.B.E., will deliver a paper entitled "Present-day Progress on British Railways."

MOTIVE POWER MISCELLANY

LONDON MIDLAND REGION

BY 23/11/53 the first of the new standard 2-10-0s had had a boiler mounted on its frames at Crewe and work was in progress on four others of the type in No. 9 shop, while frames for Nos. 92005-7 were set up in the Heavy Machine Shop; it appears that Franco-Crosti boilers are not being supplied to the first batch of these engines. Earlier in the month, on 10/11/53, one of the Brighton-built 2-6-4 tanks No. 42083, was observed at Crewe under repair. Also on 23/11/53 "Scot" No. 46134 was in the process of rebuilding with taper boiler, while "Britannias" in for attention were Nos. 70016/39 (the latter had been noted at Watford on 19/11/53, in immaculate external condition, being hauled northward by 2-8-0 No. 48265). Caprotti "5MT" No. 44687 was still equipped with an indicator shelter, and it was noted that its smokebox number-plate had been mounted on the shelter. This engine was outside No. 9 shop, and nearby was ex-L.N.W. 0-6-0 saddle tank No. 3323, which rumour has it is to be withdrawn; another L.N.W. veteran whose fate appeared sealed was 0-4-2 saddle tank No. 47865, which was in the Cutting Up shop. [I. Nicholls, J. Roylance, N. C. Lister, M. J. Horrobin.]

Although the standard "4MT" 4-6-0s at Shrewsbury have been replaced by standard "5MT" 4-6-0s, Stanier "5MTs" are often used on the Shrewsbury turns over the Crewe-Manchester line which the "4MTs" used to work. These are the 12.45 p.m. Crewe-Manchester express, returning with the 5.11 p.m. Manchester-Crewe local, and the 6.35 p.m. Crewe-Manchester express, returning with a fitted freight via Styal; normally the engine working the first turn one day appears on the second the following day. [R. A. Hawley.]

Early on the morning of 12/11/53 Derby "Patriot" No. 45509 appeared in Chester (Northgate) with the mail and newspaper train from Manchester (Central); this and the return working to Manchester are a filling-in turn for a Derby engine, but the locomotive usually provided is a "5MT" 4-6-0, a compound or sometimes a 2-6-4 tank. Only one "C13," No. 67436, remains at Chester Northgate, together with three "N5s," and the former "C13" workings into Manchester Central are performed by the Ivatt 2-6-2 tanks, Nos. 41215/6/31/4/5/7/9/88. No. 67436 still works the motor train to Shotton High Level and Buckley Junction, since the two auto-fitted "2MTs," Nos. 41215/6, are not equipped on the ex-L.N.E. system. A Walton tank now works out to Northwich on the Saturday 12.35 p.m. from Manchester (Central); a "Jubilee" has twice been noted on this turn, however. The numbers of C.L.C. "Directors" are dwindling; only six "D10s" remain, four at Northwich and two at Trafford Park; the former shed has one "D11" and the latter four, but even these are rarely seen nowadays on the Chester line. [D. Carsberg.]

Commenting on notes in our November issue concerning ex-L.N.W. 2-4-2 tanks in the Warwick area, a correspondent writes that the last officially allocated to Warwick shed, No. 46654, was cut up at Crewe at the end of September; Nos. 46601(2A) and 46666(2E) were on loan to Warwick, but both have returned home. Our correspondent adds that the 7.55 a.m. Leamington-Birmingham train is not in fact a Crewe North turn, and the appearance of Edge Hill or Longsight engines on it would appear to result from the fact that an ex-works engine is sometimes rostered to the job. The outward working is the 2.50 a.m. mail from Birmingham to Leamington Spa (Avenue); when our reader last travelled by the 2.50 a.m., on Easter Monday, 1953, he had only the guard for company, it was labelled "Glasgow-Birmingham," and his engine was Holbeck "Jubilee" No. 45597! The other train mentioned in November, the 5.8 p.m. all stations from Birmingham via the Berkswell loop, is sometimes powered by a Monument Lane engine; neither of these trains run on Saturdays, the 7.55 a.m. being an empty stock working and the 5.8 p.m. being non-existent. There is another Longsight working to Leamington in the small hours on a parcels train, the engine returning to New Street, it is believed, on the 8.26 a.m. from Leamington. An Edge Hill engine also arrives at Leamington during the day, then proceeds to Coventry, where it stays on shed until the evening; it works out from Spencer Park goods depot on a goods to Nuneaton, where more traffic is picked up for the return freight working to Liverpool. On Saturdays this engine has a working to Leicester in the afternoon, but is stabled over the weekend at Nuneaton shed, which sometimes borrows it for Sunday excursions to London. The two auto-fitted 2-6-2 tanks, Nos. 41211/3, were tested between Nuneaton and Leamington with a view to working certain workmen's services as auto-trains; an ancient motor coach, No. M3404, was unearthed for trials, but there has been no development of the idea. During November the Lickey banker, 0-10-0 No. 58100, arrived at Saltley after being in collision with a "Jinty" 0-6-0, No. 47305, at Bromsgrove. [G. E. Jones, L. Winter.]

Super-power on the two-hour 12.50 p.m. Euston-Wolverhampton was observed on 25/11/53, when the train was doubled-headed by "5MT" 4-6-0 No. 45051 (3E) and rebuilt "Scot" No. 46146. Another unusual double-headed spectacle was provided by the down "Merseyside Express" on 11/11/53, when it had a brace of "Jubilees," Nos. 45596 and 45670. On 20/11/53 "Patriot" No. 45543 headed through Watford with the 11.10 a.m. Euston-Crewe parcels, which was made up to the taxing load of—one six-wheeler! Referring to a caption on page 445 of last month's issue, a reader remarks that during last summer Longsight shed usually rostered "Britannias" to work both the 8.20 and 9.45 a.m. from Manchester (London Road) to Euston, the respective return workings being the 10 p.m. parcels and 10.45 p.m. (SX) from Euston, though the engines were sometimes interchanged on the latter. This winter, the Camden rebuilt "Scot" working the down "Mancunian" returns the next morning with the up train, the 9.45 a.m. from London Road (previously it came home on the 10.5 a.m.); this turn is worked by a Camden crew in both directions. Another Camden crew mans a Longsight engine on the 3.45 p.m. from Euston and 10.5 a.m. from Manchester; thus Longsight engines now work up on the 8.20 a.m.—usually with a rebuilt "Scot"—and 10.5 a.m., and go home on the same two return workings as in the summer. [L. A. Miller, M. B. Dean, R. W. Beeton.]

The latest standard "5MT" 4-6-0s turned out from Derby, Nos. 73040-2, have been sent to the L.M. shed at Chester, while No. 73043 has been allocated to Patricroft. On 22/11/53 new construction of this class at Derby was in progress up to No. 73050, and of diesel shunters up to No. 13043. On this date two dual brake-fitted standard engines, 4-6-0 No. 73030 and Pacific No. 70043, were noted on Derby shed. The other dual-fitted "5MT," No. 73031, has been observed quite regularly on the 12.40 p.m. Newcastle-Bristol express from Derby. A train from Peterborough arrived in Leicester (L.M.) behind New England "B1" No. 61047 on 29/11/53. Bristol "Jubilee" No. 45577 appeared in St. Pancras with the 8.28 a.m. from Nottingham on 31/10/53. On 21/11/53 "K1" 2-6-0 No. 62038 made the first visit of its type to Toton. Western railcar No. W14 worked into St. Pancras on 14/11/53 with party of the Solihull Society of Arts, reaching Bedford from the Midlands via the S.M.J. line. On 28/10/53 "5MT" 4-6-0 No. 73027 (82B) was noted on Bedford shed, and on 6/11/53 "J39" No. 64793 (32B) arrived on a Cambridge goods working. [P. B. Harrison, R. S. Higgs, B. K. Bates, M. J. Draper, R. Riddington, G. J. Keech.]

On 2/11/53 a rebuilt "Scot" again worked over the ex-L. & Y. route to Skipton, when No. 46115(9A) headed the 8.38 a.m. from Manchester (Victoria); No. 46143 had previously been used on this turn, usually powered by a "5MT" 4-6-0, on 17/9/53. One of the new standard "2MT" 2-6-2 tanks at Bury, No. 84016, was observed on station pilot duty

CONSCRIPTION OF THE ARISTOCRACY!

Above: Southern "Schools" Class 4-4-0 No. 30920 *Rugby* heads a transfer freight from East to West yards at Tonbridge (4/4/53). This is a regular weekday working at about 11 a.m. of a St. Leonards engine which works the 6.22 a.m. from Hastings and then stands by at Tonbridge until leaving for London at 1.59 p.m. (except on Saturdays, when it remains at Tonbridge until returning on the 8.44 p.m. to Hastings). [*B. C. Bending*

Below: Southern "Lord Nelson" Class 4-6-0 No. 30862 *Lord Collingwood* threads the New Forest towards Bournemouth with an up goods (11/6/53). [*S. Rickard*

at Manchester (Exchange) on 7/11/53. A Beeston Creosote Works diesel service 0-4-0, E.D.6, was noted at Castleton on 4/11/53. [P. Cartmell, C. Stott.]

On 28/11/53 the first two of the new batch of 0-4-0 saddle tanks, Nos. 47005/6, were seen shunting in the vicinity of Morpeth Dock goods yard, Birkenhead, and No. 47007 was on Birkenhead shed. It is understood that the whole batch is destined for Birkenhead depot. [B. C. Shore.]

EASTERN REGION

RECENT transfers of the largest types on the E.R. have involved the "W1" 4-6-4, No. 60700, which has been moved to Doncaster; this engine and "A3" No. 60067, also switched to Doncaster, have been replaced at Kings Cross by "V2s" Nos. 60855/76 from New England, of which the latter worked the 2.5 p.m. Cambridge Buffet Express from Kings Cross on 24/11/53. The G.C. section has surrendered three of its "A3s," Nos. 60051 and 60103 to Grantham and No. 60048 to Doncaster, but Leicester shed has acquired No. 60044 from Doncaster in place of the last mentioned.

On 5/11/53 another A.T.C. demonstration run was made from Kings Cross to Huntingdon, one of the ex-"Coronation" beaver-tail observation cars being propelled by "A4" No. 60028. A special chartered by the British Iron & Steel Research Corporation was worked throughout from Kings Cross to Sheffield and back by "A4" No. 60022 on 19/11/53; over the 27 miles from Hitchin to Huntingdon on the outward journey the train was given the tight timing of 21 min., requiring a pass-to-pass average of 77 m.p.h., and booked to Sheffield in a post-war record time of 177 min. for the 161½ miles. The previous day the up "Master Cutler" was again diverted from Kings Cross owing to a derailment at Leicester Central, the train arriving at 11.27 a.m. behind Leicester "A3" No. 60102; two days later an officers' special appeared at Kings Cross behind Colwick "B1" No. 61367. On 7/11/53 "A1" No. 60158 stalled in Gasworks Tunnel with the 13-coach 1.18 p.m. from Kings Cross and did not pass Finsbury Park until 1.39½; in its endeavours to restart, the train more than once rolled backward in the tunnel. From Hitchin to Huntingdon, however, the driver made a stout effort to recover the arrears, and the 27 miles were covered at an average of 80¼ m.p.h. throughout, so that the train was only 50 sec. down at Peterborough; with a normal start from London, and allowing for the Potters Bar slack, Peterborough would have been reached in even time.

Owing to a fairly heavy engineering programme on the track and a rather large number of locomotives awaiting repair, the winter running on the East Coast main line so far has not been so outstanding as in the summer, but there have been some bright spots. On 6/11/53, for example, a recorder noted all the up long distance trains due into Kings Cross between 12.45 and 2 p.m. approaching Finsbury Park up to 5 min. before time with a clear road; these included the newly accelerated 7.45 a.m. from Newcastle behind "A2/2" No. 60505 and "A4" No. 60022 on the "Tees-Tyne Pullman." On the other side of the ledger, "A1/1" No. 60113 failed near Hitchin with the 5.35 p.m. Kings Cross-Newcastle on 10/11/53, and had to work forward to Grantham with the 5.15 p.m. Welwyn Garden City-Colwick goods on 14/11/53. On 10/11/53 the up "Tees-Tyne Pullman" arrived in London behind "V2" No. 60841, "A4" No. 60003 having failed at or near Peterborough; the "A4" made its way up to London on a coal train on 21/11/53.

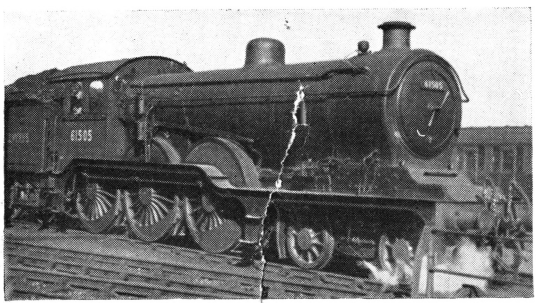
Interesting freight visitors to the capital during November were "O2" 2-8-0s Nos. 63940 (35B) and 63956 (36A), "J19" No. 64647 (30E) and "J39" No. 64983 (38A). Fresh from plant, Haymarket "A3" No. 60094 headed the 11.15 a.m. empty stock train out of Kings Cross goods station on 26/11/53. Strangers noted on Cambridge turns were March "K1" No. 62053 (on the 2.21 p.m. from Kings Cross on 12/11/53) and Stratford "B17" No. 61651. A most unexpected visitor to London has been "A2" No. 60527 (62B); it headed the 5.15 p.m. Welwyn Garden City-Colwick goods on 28/11/53 and the 3.50 p.m. Kings Cross-Leeds on 1/12/53. [M. B. Dean, R. A. H. Weight, J. F. Aylard, J. F. Ward.]

In the list of Kings Cross Pacific turns given in our November issue the 8.20 to Grantham, returning during the night with a fish train from Aberdeen, was omitted. It might also have been added that on Fridays and Saturdays a Grantham engine works the 12.18 p.m. from Kings Cross, the Kings Cross engine taking the 1.5 p.m. On Mondays Kings Cross shed works the 5.45 a.m. to Grantham and the 1.35 p.m. arrival back in London.

The Tilbury line is acquiring standard "4MT" 2-6-4 tanks and Nos. 80069-74 have already arrived at Plaistow. With the 13-coach 5.8 p.m. Fenchurch Street-Shoeburyness on 12/11/53 No. 80070 lost 5½ min. to Laindon owing to checks, but recovered from a slowing to 25 m.p.h. at the foot of Laindon bank to 38 m.p.h. on the 1 in 132, dropping back to 34 m.p.h. on the 1 in 110. On 29/11/53 "4MT" 2-6-0 No. 43118 (16A) was noted at Leigh on a ballast train. Stratford has acquired two of the standard "4MT" 2-6-0s, Nos. 76030/1. Some outstanding weekly mileages are being run by the G.E. section "Britannias" now that they are used on both Cambridge and Colchester routes to Norwich. Most of the rosters involve some 500 miles' running in less than 24 hours, and in one recent four-weekly period No. 70002 put up a record mileage of 9,759. Two ex-L.T.S. 4-4-2 tanks, Nos. 41952/75, have been transferred to Stratford.

Since March shed lost 43 of its "WD" 2-8-0s, as reported last month, it has had to borrow. An observer at Cambridge noted "O2s" Nos. 63978 (36A) on 3/11/53, 63954 (36A) on 10/11/53 and 63934 (36C) on 16/11/53, while No. 68987 (36E) was at Stratford on 29/11/53. Several "O4s" have also been noted, such as No. 63667 (40E) on 6/11/53 and 63840 (40E) on 23/11/53, while No. 63618 (38A) was seen heading through Edmonton with a down freight on 27/11/53. The 11.17 a.m. Cambridge-Ipswich, illustrated on page 440 of the November issue, is double-headed daily by two Ipswich engines, usually two "L1s" or an "L1" and a "B12," but variations observed have included a "D16" and "L1," "B17" and "L1" and even a "B17" and a "B1"! A stranger noted at Yarmouth (Vauxhall) early on 3/12/53 was Pacific No. 70011, presumably running in after repairs at Norwich. [E. P. Tromans, P. R. Fry, A. Cross.]

On 6/10/53 "B17" No. 61664 appeared on the M. & G.N. line from Melton Constable to South Lynn with a troop train; a week later "K1" No. 62039 headed a pick-up goods from South Lynn to Fakenham. [H. Morling, R. N. Loveday, F. Wilshaw, P. I. Paton.]



CLASS EXTINCT—On 5/11/53, No. 61524, the last of the Class "B12/1" 4-6-0s rebuilt from 1943 with round-topped fireboxes, was withdrawn; the engine seen here is No. 61505 of this type.

[T. Greaves

The L.M. Garratts are not infrequent visitors to Scunthorpe, although it is believed that officially they are not supposed to travel further east than Mexborough. As Mexborough is not over-blessed with motive power, however, they are sometimes allowed to work through and nine were observed at Scunthorpe during 1953. Stanier 2-8-0s from the Midland division are frequently seen there. On 24/10/53 new standard 2-6-0 No. 76028 was observed at Frodingham shed, evidently on a running-in turn from Doncaster. [M. G. Hartley.]

NORTH EASTERN REGION

RARELY is a North British 4-4-0 seen in Newcastle these days, but on 5/12/53 St. Margarets' "Glen" 4-4-0 No. 62490 arrived there on the 6.15 a.m. through train from Hawick; next day it was observed on Blaydon shed. At Darlington works it was observed that new "2MT" 2-6-0s Nos. 78010/1 were nearing completion, and also the last of the current diesel shunter order up to No. 13081. [H. Forster, M. Brown.]

Two unusual visitors to Crook, County Durham, in recent weeks have been: on 10/10/53, "B16" No. 61412 (50B), which appeared to be running in after overhaul; and, on 3/11/53, "O1" 2-8-0 No. 63760 (54B), which hauled a drag of empties to Bankfoot Coke Works—a 2-8-0 has not been seen in this area since last March. "Q6" 0-8-0s have been noted on the Wearhead branch; hitherto no larger freight engines than 0-6-0s had been observed on this line. [F. Hancock.]

WESTERN REGION

IT has been noticed that specific "Castles" are usually reserved to the principal accelerated workings introduced this winter. For example, No. 7006 has been the regular engine on the 8 a.m. Cheltenham-Paddington, with a few exceptions—on one occasion the train was double-headed by "Castle" No. 7035 and "County" No. 1006; except for two days off to work race specials, No. 5040 has been a fixture on the 11.15 a.m. Paddington-Bristol; while No. 7011 is more often than not at the head of the 1.15 p.m. Paddington-Weston-super-Mare and No. 5025 on the 11.45 a.m. Bristol-Paddington. On the Birmingham line the up "Inter-City," 5 p.m. from Birmingham and allowed 125 min. to Paddington including the Leamington and High Wycombe stops, has been altered to a Stafford Road instead of an Old Oak Common working. Another Worcester shed working to London has been introduced on the Sunday 6.20 p.m. from Worcester, returning on the 11.25 p.m. from Paddington; there is, of course, an existing Worcester Sunday working to the capital on the 11.45 a.m. from Worcester, returning on the 6.20 p.m., while on weekdays the 6.35, 7.45, 8.55 a.m. and 12.15 p.m. from Worcester are all powered by home engines, which return on the 11.45, 1.45, 4.45 and 6.45 p.m. trains from Paddington.

On 22/10/53 a "King", No. 6024, headed the down "Torbay Express" out of Paddington, and next day Newton Abbot "Castle" No. 5024 headed the 11.15 a.m. Paddington-Bristol; on 13/11/53 Llanelly "Grange" No. 6844 headed the empty stock of the 12.35 p.m. arrival out of Paddington to Bicester. The 11.55 a.m. Paddington-South Wales is now usually double-headed on Wednesdays and Fridays by the engine off the 3.55 a.m. Fishguard-Paddington, which runs only on those days; the usual pairing is a brace of "Castles," but a "Castle" and a Pacific have been noted. On 26/10/53 "Castle" No. 7029 piloted "King" No. 6026 out of London on the 11 a.m. Paddington-Plymouth. [J. M. Craig, L. G. Edwards, R. Foulkes.]

At the beginning of November "Star" No. 4056 (82A) was overhauled at Swindon; on 28/11/53 it was noted on Laira shed, where a "Star" is very much a rarity these days. No. 4056 was turned out to head no less a train than the up "Merchant Venturer" from Bristol on 3/12/53! Another Old Oak pannier tank, No. 8771, has been fully lined out at Swindon, whose latest product is "4MT" 4-6-0 No. 75020. The latter has been allocated to Oswestry in place of "Manor" No. 7821, transferred to Shrewsbury, and on 27/11/53 began working the 8.20 a.m. Oswestry-Aberystwyth and 2.30 p.m. return; unlike the standard 2-6-0s, the new engine has drawn unfavourable first reactions from its Oswestry crews. [A. Lee, A. R. Pike, L. Fraas, D. King, D. Diment.]

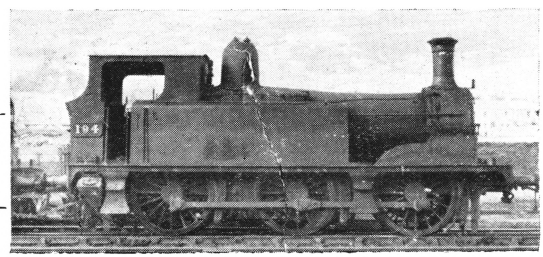
On 13/11/53 the B.T.C. "Royal Journey" cavalcade was seen on its way from Cardiff back to Wolverton, travelling via Gloucester, Honeybourne and Yarnton, after its countrywide tour. On Saturday nights during November and December the single line Colwall Tunnel between Worcester and Hereford was being relaid, necessitating a number of freight diversions via Gloucester and Honeybourne. In use on this work is the little diesel engine PWM 650. [J. Powles.]

It is reported that some ex-L.M.S. 2-6-2 tanks are to be transferred from Abergavenny to Pontypool Road for use on the services to Neath via Hirwaun and also on banking duties in the direction of Crumlin Viaduct; No. 40145 is already working from Pontypool Road. It is believed that the 2-6-2 tanks will return to Abergavenny for boiler washouts. All the passenger services on the Abergavenny-Merthyr line are now worked by "57XX" and "64XX" 0-6-0 tanks shedded at the terminal depots of this route. Although the Taff Vale Class "A" 0-6-2 tanks at Barry have been relegated to freight work, as we reported in November, some from Cardiff (Cathays) and Abercynon have been working the morning trains from Treherbert and Merthyr to Cardiff and from Cardiff to Merthyr, which run non-stop between Pontypridd and Cardiff (Queen Street). Their performance on these jobs has been excellent. [A. J. Morris, D. J. Walkley.]

On the Central Wales line the standard "5MT" 4-6-0s now at Shrewsbury shed have taken over the principal passenger workings; on 3/11/53, however, No. 73018 was noted shunting at Llandovery prior to departure on a northbound goods. Much of the track governed by Llandovery No. 2 box was recently track-circuited and at Llandilo construction has begun of a new brick signal cabin which will replace the three existing boxes early next year. [A. Evans.]

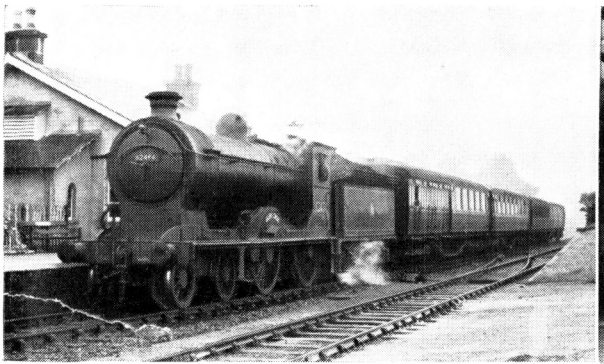
Commenting on notes concerning the Machynlleth-Pwllheli line appearing in our November issue, a correspondent writes that no "Manors" are shedded at Wellington; four are housed at Shrewsbury, but none work farther west than Welshpool. The "Manor" seen east of Machynlleth was either from Aberystwyth, where there are two, or from Oswestry, where there are five; these engines work the main trains between Oswestry and Aberystwyth. Another writer challenges the statement that passenger trains north and south of Barmouth were all double-headed during the summer. [V. Williams.]

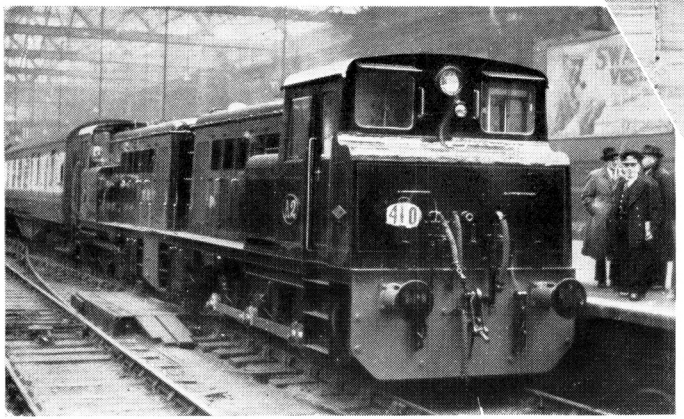
A regular Dean 0-6-0 working in Montgomeryshire is still the Tuesday, Thursday and Saturday goods up the Kerry branch. Although it is worked by Moat Lane men, the engine, usually No. 2484,

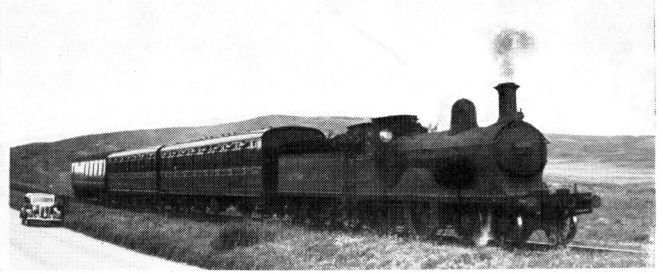


LAST SURVIVOR—No. 194, last of the Taff Vale Class "H" 0-6-0 tanks, has been withdrawn. These engines were described in the January, 1950, issue.

[*H. C. Casserley*







A SCOTTISH MISCELLANY

Top left: A " Glen " on Deeside—Class " D34 " 4-4-0 No. 62474 *Glen Croe* at Glassel with an Aberdeen-Ballater train. [*C. Lawson Kerr*

Bottom left: Two North British Loco. Co. diesel-hydraulic 0-6-0s built for Mauritius prepare to leave Glasgow Central (11/11/53). (See *page* 43.) [*W. F. Cameron*

Top right: North British invader—Class " D30 " 4-4-0 No. 62426 *Cuddie Headrigg* takes the 5.25 p.m. to Perth out of the ex-Caledonian Princes Street station, Edinburgh. [*P. Ransome-Wallis*

Bottom right: A substitute power for the usual cowcatcher-fitted " 2MT " 2-6-0 on the ex-G.N.S. Fraserburgh-St. Combs branch, Class " D40 " 4-4-0 No. 62270 was photographed near Cairnbulg. [*C. Lawson Kerr*

comes from Oswestry, which it leaves on the 12 noon goods, returning home light, and is no longer stabled at Moat Lane. The latter depot, a wooden shed which has seen better days, used to be a stronghold of Cambrian and Dean 0-6-0s, and for a time also had pannier tank No. 2068 to work the Kerry branch. In the latter part of 1948 4-4-0s Nos. 9001/4 arrived, but proved unpopular with the crews and soon left. At the beginning of 1953 the Ivatt 2-6-0s took over the traffic in the area and Oswestry, of which Moat Lane is a sub-depot, now has 15 of them, while 10 more are at Brecon; three of the Brecon engines are regularly stabled overnight at Moat Lane. Moat Lane's work has shrunk since the war; in 1939 it had turns for seven or eight engines, but now they cover only three. [Coventry Locomotive Society.]

SOUTHERN REGION

AS the result of a breakaway on the 4.20 a.m. Newton Abbot-Plymouth goods as it was descending Dainton bank on 22/11/53, there was a derailment and subsequent blockage on the Western route from Exeter to Plymouth, which lasted for more than 12 hours. Western traffic was therefore routed over the Southern line via Okehampton. The largest W.R. types permitted over this route are 2-6-0s, and several were seen in action. The up "Cornish Riviera Express," which reached Exeter 52 min. late, had No. 6319 (83D) in solitary command of its nine bogies, but the down train was double-headed by Nos. 6379 (81D) and 5360 (83A), although double-heading is officially prohibited over Meldon Viaduct. It is believed that some 2-6-0s were sent up from Cornwall for the day to help out, including No. 6300 (83E). [I. Nicholls.]

An unadvertised Sunday train from Waterloo is the 7.5 p.m. to Salisbury. On 22/11/53 "N15" No. 30752 came to grief at Woking on this train with a faulty big-end and was replaced by "M7" 0-4-4 tank No. 30246 (70C). The tank had been shunting all day and its fire was dirty; it required 62 min. to reach Basingstoke, including a stop for steam at Farnborough, and there handed over to "N15" No. 30745, which reached Salisbury 75 min. late. There are four other unadvertised trains from Waterloo on Sunday nights, incidentally, which are provided principally for military personnel; they are the 9.16 and 11.30 non-stops to Andover Junction, and the 11.52 and 12.20 to Salisbury, the former calling at Basingstoke, the latter at Andover Junction. [J. G. McEwen.]

"West Country" No. 34040 of Bath caught fire as the north-bound "Pines Express" was passing through Radstock North on 6/11/53. It was stopped on the Bath side of the station, and the local fire brigade had to be summoned to extinguish the blaze. According to the local press, the trouble was caused by oil, ignited by hot brakes after the descent from the Mendips, burning fiercely round the lubricating oil feed pipes on the boiler. The Pacific, which was piloted, was able to carry on to Bath after some 30 min. delay. On 21/10/53 diesel shunter No. 13014 paid the first visit of a B.R. diesel engine to Southampton Docks for clearance tests. The possibility of substituting engines of this type for the "USA" Class dock tanks is under consideration, but no decision has yet been taken. [R. S. Billett.]

The most unsual engine yet noted at Hampton Court on the morning goods was seen in mid-November. This was Bournemouth light Pacific No. 34110!

Brighton "West Country" No. 34048 was observed on the Shoreham-Horsham branch on 3/11/53, heading a goods away from Beeding Cement Works tender-first. As a change from the usual "M7" passenger power on this line, the early morning workmen's train to Steyning is now hauled by a standard "4MT" 2-6-4 tank. [D. Martin.]

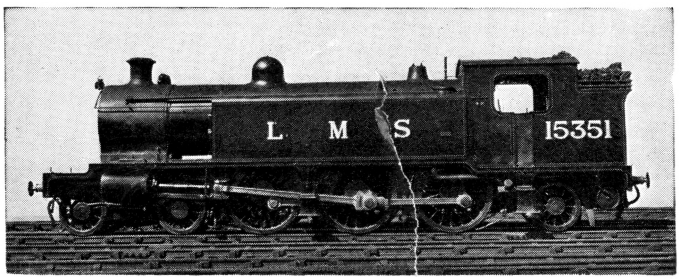
On 12/11/53 standard "4MT" 2-6-0 No. 76007 (71A) was noted on the 10.10 a.m. Southampton Terminus-Cheltenham train and its return working, the 3.20 p.m. Cheltenham-Eastleigh goods. It is believed those engines previously had not been farther along the M.S.W.J. line than Swindon. [R. Earle.]

SCOTTISH REGION

THE last of the Caledonian 4-6-2 tanks, No. 55359. has been withdrawn. Twelve examples of this Pickersgill design were built at St. Rollox in 1917, Caledonian Nos. 944-55, and, with 5 ft. 9 in. driving wheels, were intended for the Glasgow-Clyde Coast services. The working of these well-loaded and smartly-timed trains included jobs over the arduous Port Glasgow-Wemyss Bay branch, whence these engines derived their nickname of the "Wemyss Bay Tanks." With the post-war invasion of L.M.S. 2-6-4 tanks, the ten 4-6-2s surviving in 1946 gravitated to Beattock on banking duty.

In mid-November two new 625 h.p. diesel-hydraulic locomotives built by the North British Locomotive Co. for the Mauritius Government were tested on British Railways. On 9/11/53 the two 0-6-0s were despatched to Coatbridge and set at the 1 in 23 gradient near Kipps shed. This trial was particularly important, for in Mauritius the engines will be working on a line which rises from sea level to a summit of 1,840 ft. in 32 miles, and is graded as steeply as 1 in 26 in places. Later in the week the two diesels worked some special trains of passenger stock for the benefit of an inspection party; on 11/11/53 they hauled a three-coach train from Glasgow Central to Lanark, and on 12 and 13/11/53, they hauled a five-coach train between Glasgow and Edinburgh (Princes Street). [W. F. Cameron.]

A noteworthy visitor to the Waverley Route on 25/10/53 was Haymarket "A4" No. 60012, although it failed at Hawick and had to return home light the next day. Another stranger was "A3" No. 60080 (52B), which headed the 6.35 a.m. Edinburgh-Carlisle and 3.37 p.m. return on 31/10/53. Stanier 4-6-0s were noted on freight work; No. 44879 (63A) hauled the 1.45 p.m. Carlisle-Meadows goods on 29/10/53, and No. 44703 (68A) the 10.30 a.m. Portobello-Carlisle goods on 5/11/53. On 21/11/53 the latter train had even more unusual power, 2-6-0 No. 42717, one of three "Crabs" just transferred to St. Margarets; on this date "2P" 4-4-0 No. 40574 (67C), believed to be en route to the south for repairs, was on Hawick shed. For some time in November "D20" No. 62355 was in use on Newcastle-Hawick trains. Blaydon engines have recently begun working into Edinburgh (Waverley) on the Sunday 9 a.m. from Hawick. On 30/11/53 the 1.20 a.m. Carlisle-Niddrie goods was headed by "A3" No. 60071 (52A), while on 5/11/53 No. 60076 (52A) worked the 7 p.m. Carlisle-Newcastle passenger. [K. A. Gray, K. Wildey, F. Sharples.]



END OF THE "WEMYSS BAY TANKS"—No. 15351 of this ex-Caledonian 4-6-2 type, of which the last has recently been withdrawn, is illustrated.

Carlisle Canal "A3" No. 60093 worked into Perth with the 7.40 a.m. from Edinburgh (Waverley), a Haymarket turn, on 4/11/53. The previous day the 9.25 a.m. from Crewe arrived here behind Newton Heath "Jubilee" No. 45671. The two "D34" 4-4-0s recently transferred to Perth, Nos. 62470/84, are regularly employed on services to Glasgow (Queen Street). [P. Binnie.]

In November Crewe Pacifics resumed appearance on the 3.30 p.m. "West Coast Postal" working from Aberdeen after a two months' lapse; on this date the engine was No. 46235, followed by No. 46234 on 10/11/53 and the Harrow victim, No. 46242, on 12/11/53. Previously the train had been handled by Perth and St. Rollox "5MTs," with occasional turns by Kingmoor "Jubilees" and "5MTs"; on 5/11/53 "Clan" No. 72008 dealt with the job. A surprising visitor to Aberdeen on 24/11/53 was Newton Heath "Crab" No. 42901, which—even more oddly—arrived with a goods from Dundee and, after a day on Ferryhill shed for attention to its superheater, left on 26/11/53 with the 4.40 a.m. goods back to Dundee. After a recent repair at Inverurie it was noted that "J36" 0-6-0 No. 65224 had been deprived of its name *Mons*. During November three "N15" 0-6-2 tanks, Nos. 69157, 69202/20, were repaired at Inverurie—the first time engines of this type have been dealt with there for more than a year. On 2/11/53 ex-Calendonian 0-6-0 No. 57368 (63C) worked a goods over the Deeside line to Torphins after repair at Inverurie [D. W. Smith.]

LOCOMOTIVE STOCK CHANGES

IN all cases B.R. numbers are quoted. "N.Y.A." denotes "not yet allocated" (on official lists received). The list is correct to the following dates: E. & N.E.R. to 21/11/53; L.M.R. to 31/10/53; Sc.R. to 31/10/53; W.R. to 3/10/53.

NEW ENGINES

Diesel Electric 0-6-0: 13026/7/8/9/30-N.Y.A.; 13067/8/9-38E; 13070-53C; 13071-53A; **Class "OF" 0-4-0ST:** 47005-6C; **Class "5MT" 4-6-0:** 73040/1/2-6A; 73043-10C; **Class "4MT" 4-6-0:** 75046/7/8/9-24A; **Class "4MT" 2-6-0:** 76030-30A; **Class "4MT" 2-6-4T:** 80072/3-33A; **Class "2MT" 2-6-2T:** 84016/7/8/9-26D.

ENGINES CONDEMNED

40, 75, 431, 682, 2920, 32384, 40422, 40505/51, 41056, 41846, 52098, 54444, 55161, 55359, 58068, 58180, 65018/23, 65481/2, 67468, 68208/82, 68548, 68776, 69227.

ENGINES REALLOCATED

82/3, 211/5/6/79/90-88B; 303/93/9-88C; 379-88E; 873/95-89A; 1367/70-82F; 1442-81D; 1473-34E; 1605-85A; 1624-83E; 2008-88A; 2097-83D; 2209/59/97-84C; 2236-81F; 2244-84G; 2810-86J; 3024/6/43-86C; 3028-84B; 3653-81E; 3692-82F; 3694-84E; 3837-81E; 4101/60/1/3/4-88D; 4155-84H; 4507-82E; 4511/32/82-82A; 4557-87H; 4573-82C; 4578-88C; 4580/9-88A; 4587-83G; 4599-89C; 4706-82B; 4907-85C; 4917-84K; 4940/85-83B; 4945-81E; 4962-81A; 5093-83D; 5162-88F; 5181-84E; 5195-88D; 5321-83B; 5328-84J; 5368-81D; 5511/72-88F; 5524/45/55/60/74-86F; 5525-82A; 5527/9/34-88C; 5556-89C; 5573-86H; 5639/97-81E; 5644/98-86J; 5660-88E; 5721/51-83B; 5724-84E; 5770/89-87B; 5997-82C; 6105/18/21/34/9/66-84E; 6339-84J; 6382-85A; 6389-82F; 6390-83B; 6433/5/6-88D; 6614/20/68/9-84E; 6627-81D; 6649/61-86J; 6655/64-81C; 6827-82B; 6860-86G; 6874-83B; 6927/60-81D; 6949/67-82C; 6983-81E; 7035-85B; 7415/8-82C; 7711-83C; 7801-84K; 8451-83A; 8458-85A; 8461-82C; 8462-84E; 8463-87E; 8495-88A; 8499-86A; 8744-82D; 8777-86G; 9015-81F; 9470-88A; 12052-5B; 26024/36-39A; 26031/45-36D; 30083-71A; 30183-72D; 30270-72B; 30310-71A; 30350-70C; 31158-74E; 31166-74D; 31269-74E; 31320-75A; 31543-74D; 31553-73B; 32168-70E; 33024-74D; 40003-2B; 40082-20A; 40411-15D; 40419-5A; 40588-27A; 40937-24A; 40938-63B; 41060-5A; 41085-24A; 41102/86/7/8-27B; 41163-6A; 41193-27A; 41275-1E; 41753-6C; 42111/2/3-27E; 42114/5-26F; 42121-8E; 42591-10C; 42948/79-3D; 43219, 43599, 43771/98, 43803/17-21A; 43891-18C; 44020/88-18A; 44117-6B; 44135-22A; 44190, 44289-18A; 44296-22A; 44298-14B; 44362-18A; 44369-17A; 44432-5D; 44603-18C; 44871-5D; 45003-1A; 45059-19A; 45271-8B; 45331-6G; 45354-8B; 45381-5D; 45403-6A; 46415-25A; 46434-10A; 46487-25C; 46601-2A; 47181-39A; 47225-21A; 47227-15C; 47243-14B; 48017-8D; 48061-15B; 48094-8C; 48106-6B; 48154-2B; 48247-6B; 48426/41-2E; 48445-9G; 48470-19C; 48510-17A; 48534-2E; 48748-16A; 48772-15A; 49271-3C; 49416-8D; 49624-25E; 50781-27C; 50869-25F; 51218-5B; 52138-24B; 52207, 52345, 52459-Crewe Works; 52355-25F; 52427-26F; 54471-60A; 54501-65B; 54502-68B; 55231-60A; 58066-20G; 58077-19B; 58273-11B; 60044-38C; 60048-36A; 60051-35B; 60062-34A; 60103/6-35B; 60700-36A; 60801/85/6-52B; 60855/76-34A; 60945/52-52B; 61015/20-50B; 61047-35A; 61365-36A; 61424/52/8/62/5/6/73/4-50B; 61618/21/34/45-30A; 62427-62C; 62470-63A; 62480/2-61A; 62660-40A; 62670-40B; 62725-63B; 63378-50C; 64183, 64218-38A; 64695-31B; 64881-40D; 65541/72-31B; 65815/38-52F; 67188-30A; 67367-31C; 67715-32B; 67729/37-30A; 68065-6F; 68222-32B; 68508-30E; 69286, 69360-38A; 69516-34C; 69580-34A; 69719-30A; 69732-30E; 69903-40B; 73012/3/4/5/7/8/25/6/33/4/5/6/7-84G; 73019/22/7/8/9/32/9-82B; 73020/1/3/4/38-84K; 75001/2/4-82C; 75005/6/7/9-86C; 75040/1/2/3/4-24A; 78006/7-89C; 82000-88F; 82001/2/3/4/5/6/7/8/9-88C; 90010-84G; 90173, 90227/37/57-6C; 90284-82B; 90466-84D; 90483-84G; 90563-84D; 90610-25A; 90639/79-25C; 90667-6C; Diesel Railcars: 2-86A; 10, 27-81D; 12-81F; 19-85A.

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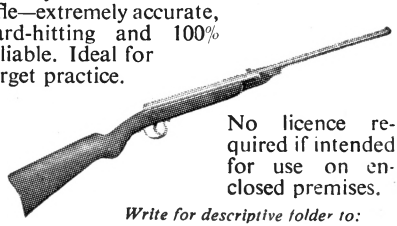

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